

SONY

リモートコントロールパネル
REMOTE CONTROL PANEL

RCP-TX7

ラックマウントブラケット
RACK MOUNT BRACKET

RMM-TXR7

SERVICE MANUAL

Vol. 2 (1st Edition)

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このマニュアルについて **MANUAL STRUCTURE**

本書の目的

本書はリモートコントロールパネルRCP-TX7のサービスマニュアルVOL.2です。
本書では、半導体、パーツリスト、ブロックダイヤグラム、マウント図、回路図を記載しています。

関連マニュアル

この「サービスマニュアルVOL.2」の他に、下記のマニュアルが用意されています。

- サービスマニュアル Vol.1

部品番号：9-977-291-11

本機の取り扱い、設置、部品の交換方法などに関する情報を記載しています。

Purpose of this manual

This manual is the Service Manual Vol. 2 of the REMOTE CONTROL PANEL RCP-TX7.
This manual contains the semiconductor pin assignments, parts lists, block diagrams, board illustrations and schematic diagrams.

Related manuals

In addition to this Service Manual Vol. 2, the following manual is provided.

- **Service Manual Vol. 1**

Part No. 9-977-288-11

Contains the operation manual related to the operations of this equipment, the replacement of the parts.

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SECTION 4

SEMICONDUCTOR PIN ASSIGNMENTS

ここに記載されている半導体は、それぞれの機能を等価的に表したものであります。なお、互換性のない型名を併記していることがありますので、部品を交換するときは、Spare Partsの章を参照してください。

等価回路は I C メーカーのデータブックに従いました。

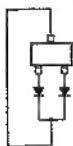
Semiconductors of which functions are equivalent are described here. For parts replacement, refer to the section of Spare Parts in this manual. The circuit diagram of each IC is obtained from the IC data book published by the manufacturer.

DIODE	Page	TRANSISTOR	Page	LED	Page	IC	Page
1S2837-T1	4-2	2SA1162G	4-2	GL3ED8	4-2	HD6435368AW34F	4-4
1SS184	4-2	2SA1213Y-TE12L	4-2	LB-202ML	4-2	HD6473308RF10	4-3
		2SA812-T1M6	4-2	MPG3371X-150	4-2	LC3564SM-10-TLM	4-6
EA30QS04-F	4-2	2SB798-DL	4-2			LM358D	4-5
EA30QS04-F-TE16F2	4-2	2SC1623	4-2			LM358DR-E2	4-5
		2SC1623-T1L6	4-2				
RB411D	4-2	2SC2873Y-TE12L	4-2			M27C512-10F1	4-6
RB411D-T146	4-2	2SD1623-S	4-2			MAX202CSE	4-5
		2SD596-DV5	4-2			MAX202CSE-TE2	4-5
		2SD596-T1DV5	4-2				
		DTC114YK	4-2			S-8054HN-CB-S	4-7
		UN2214-TX	4-2			S-8054HN-CB-T1	4-7
						SN74HC00ANS	4-7
						SN74HC00ANS-E05	4-7
						SN74HC04ANS	4-7
						SN74HC04ANS-E05	4-7
						SN74HC11ANS	4-7
						SN74HC11ANS-E05	4-7
						SN74HC164ANS	4-7
						SN74HC164ANS-E05	4-7
						SN74HC32ANS	4-7
						SN74HC32ANS-E05	4-7
						SN74HC595ANS	4-8
						SN74HC595ANS-E05	4-8
						SN74HC74ANS	4-8
						SN74HC74ANS-E05	4-8
						TL1451ACNS	4-8
						TL1451ACNS-E05	4-8
						X24164SIC7000	4-8

DIODE, TRANSISTOR, LED

DIODE

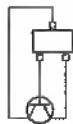
-TOP VIEW-



1S2837-T1
1SS184

TRANSISTOR

-TOP VIEW-



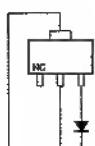
2SA1162G
2SA812-T1M6

LED

GL3ED8;A=RED,B=YELGRN



-TOP VIEW-



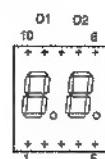
EA30QS04-F
EA30QS04-F-TE16F2

-TOP VIEW-



2SA1213Y-TE12L
2SB798-DL

-TOP VIEW -



LB-202ML ;GREEN

-TOP VIEW-

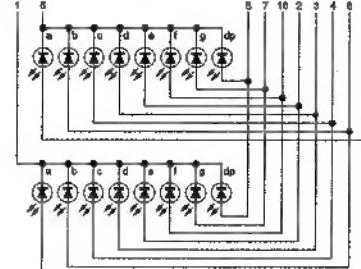


RB411D
RB411D-T146

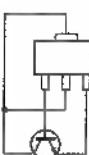
-TOP VIEW-



2SC1623
2SC1623-T1LB
2SD596-DV5
2SD596-T1DV5



-TOP VIEW-

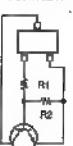


2SC2873Y-TE12L
2SD1623-S



MPG3371X-150 ;GREEN

-TOP VIEW-



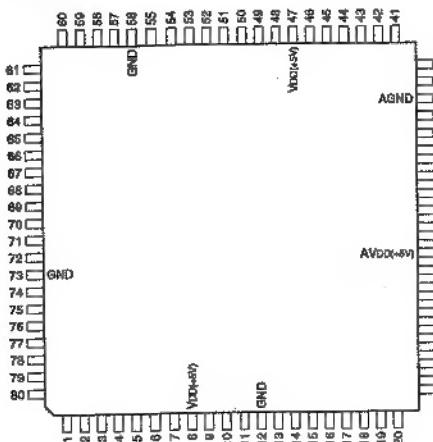
DTC114YK(R1=10K,R2=47K)
UN2214-TX

IC

HD6473308RF10 (HITACHI)

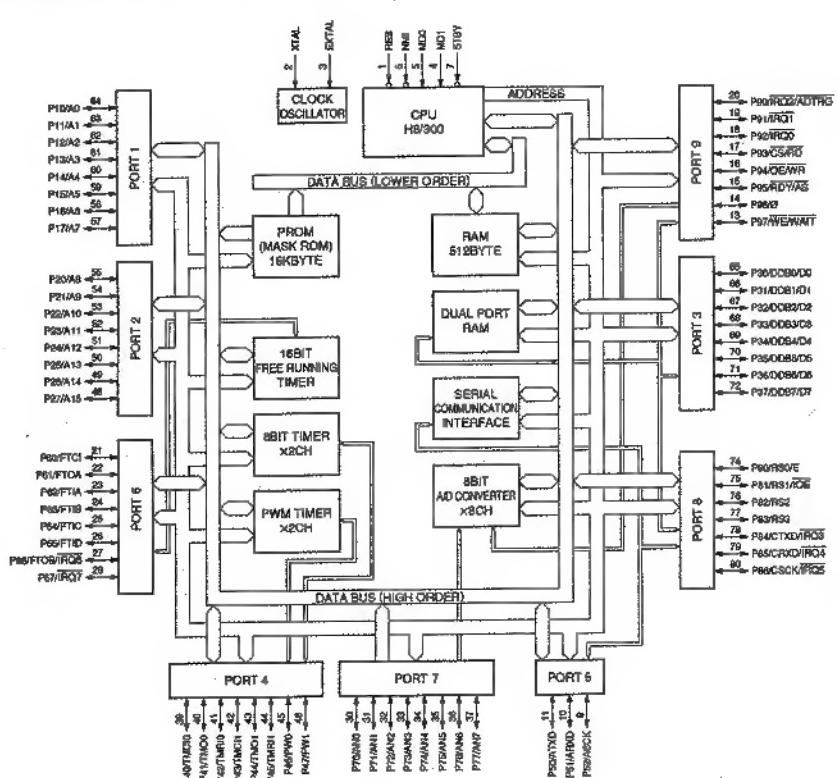
C-MOS 8-BIT SINGLE CHIP MICROCOMPUTER

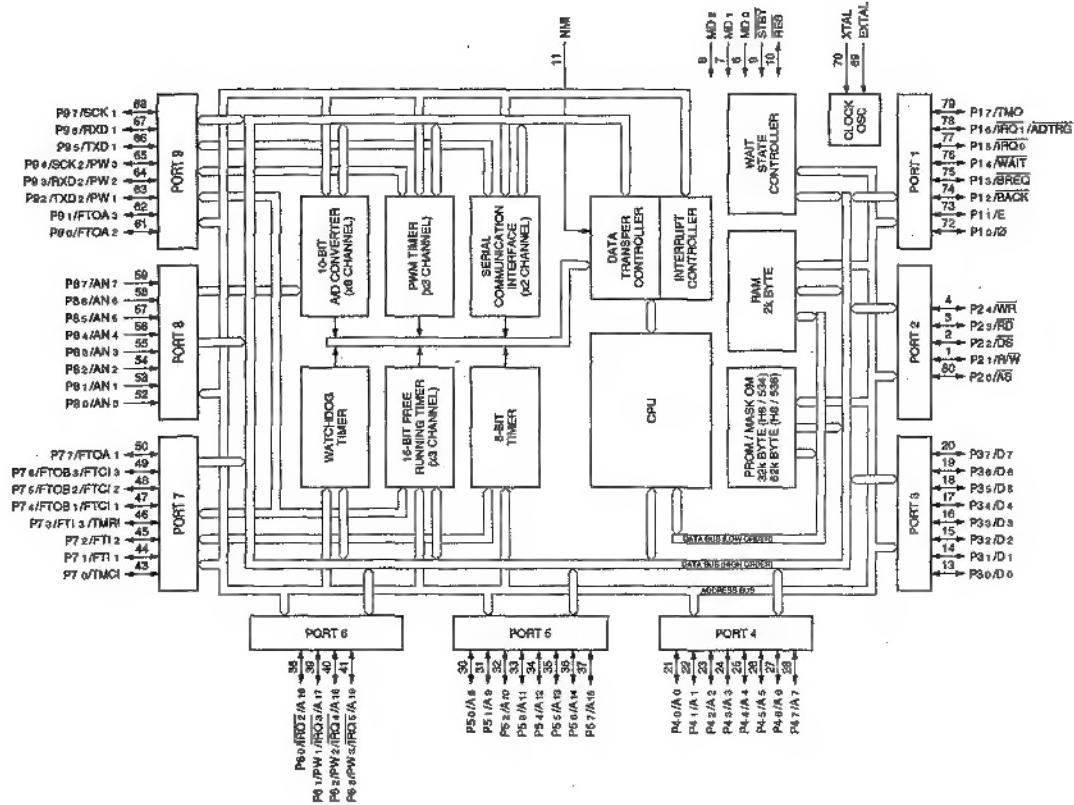
TOP VIEW



PIN NO.	IO	SIGNAL	PIN NO.	IO	SIGNAL	PIN NO.	IO	SIGNAL	PIN NO.	IO	SIGNAL
1	I	RES	21	IO	P60/FTCI	41	IO	P42/TMR10	61	IO	P13/A3
2	I	XTAL	22	IO	P61/FTOA	42	IO	P43/TMC11	62	IO	P12/A2
3	I	EXTAL	23	IO	P62/FTIA	43	IO	P44/TMO1	63	IO	P11/A1
4	I	M01	24	IO	P63/FTIB	44	IO	P45/TMR11	64	IO	P10/A0
5	I	M00	25	IO	P64/FTIC	45	IO	P46/PWD	65	IO	P30/DDB0/D01
6	I	NMI	26	IO	P65/FTID	46	IO	P47/PW1	66	IO	P31/DDB1/D1
7	I	STBY	27	IO	P66/FTOB/IRQ8	47	—	VDD	67	IO	P32/DDB2/D2
8	—	VDD	28	IO	P67/FTQ7	48	IO	P27/TMR1	68	IO	P33/DDB3/D3
9	IO	P52/ASCK	29	—	P68/AN0	49	IO	P28/A14	69	IO	P34/DDB4/D4
10	IO	P51/ARXD	30	I	P70/AN0	50	IO	P29/A13	70	IO	P35/DDB5/D5
11	IO	P50/ATXD	31	I	P71/AN1	51	IO	P24/A12	71	IO	P36/DDB6/D6
12	—	GND	32	I	P72/AN2	52	IO	P23/A11	72	IO	P37/DDB7/D7
13	IO	P97/WEN/WAIT	33	I	P73/AN3	53	IO	P22/A10	73	—	GND
14	IO	P68D	34	I	P74/AN4	54	IO	P21/A9	74	IO	P60/RSE
15	IO	P96/POY/AS	35	I	P75/AN5	55	IO	P20/A8	75	IO	P61/RS1/IOS
16	IO	P84/CEWR	36	I	P76/AN6	56	—	GND	76	IO	P62/RS2
17	IO	P69/CSDRD	37	I	P77/AN7	57	IO	P17/A7	77	IO	P63/RS3
18	IO	P82/IRQ0	38	—	AGND	58	IO	P16/A6	78	IO	P64/CTXD/IRQ3
19	IO	P81/IRQ1	39	IO	P49/TMC10	59	IO	P15/A5	79	IO	P65/CRXD/IRQ4
20	IO	P80/ADTRG/RC0	40	IO	P41/TM00	60	IO	P14/A4	80	IO	P66/CSCX/IRQ5

P10/AD	11	INPUT	A16 - A0	ADDRESS BUS
P61/ARXD	12		ADTRG	A/D CONVERSION EXIT TRIGGER
P12/A2	13		AN7 - AN0	ANALOG
P13/A3	14		ARXD, CRXD	RECEIVE DATA
P14/A4	15		CS	CHIP SELECT
P15/A5	16		FTCI	FREE RUNNING TIMER CLOCK
P16/A6	17		IRQ0 - IRQ7	INTERRUPT REQUEST
P17/A7	18		MD0, MD1	MODE
P20/VN1	19		NMI	INTERRUPT FOR NO MASKING
P21/VN2	20		OE	OUTPUT ENABLE
P22/VN10	21		RES	RESET
P23/VN11	22		R83 - R80	REGISTER SELECT
P24/A12	23		STBY	STANDBY
P25/A13	24		TMC0, TMC1	8-BIT TIMER CLOCK
P26/A14	25		TMR0, TMR1	8-BIT TIMER COUNTER RESET
P27/A15	26		Xtal, Extal	CRYSTAL
P28/VN3	27		WAIT	WAIT
P29/VN5	28		WE	WRITE ENABLE
P30/DB8AC0	29		P77/VN7	
P31/DB8D01	30		P80/BS0/E	TRANSMIT DATA
P32/DB8D202	31		P81/RS1/IO5	ADDRESS STROBE
P33/DB8D403	32		P82/RS1/IO5	ENABLE CLOCK
P34/DB8D404	33		P83/RS2	FREE RUNNING TIMER COMPARE
P35/DB8S0503	34		P84/CRXD/IRQ4	IO SELECT
P36/DB8S0406	35		P85/RS2	PWM TIMER
P37/DB8T07	36		P86/CRXD/IRQ5	RD
P38/DB8T08	37		P87/RS3	READY
P39/DB8T09	38		P88/CRXD/IRQ6	WR
P40/TMR0	39		P89/RS4	SYSTEM CLOCK
P41/TMR0	40		P90/TMR0	
P42/TMR0	41		P91/RS5	
P43/TMC11	42		P92/RS6	
P44/TMO1	43		P93/RS7	
P45/TMR11	44		P94/RS8	
P46/PWD	45		P95/RS9	
P47/PW1	46		P96/RS10	
P48/PW1	47		P97/RS11	
P49/PW1	48		P98/RS12	
P50/ATXD	49		P99/RS13	
P51/ARXD	50		P100/RS14	
P52/ASCK	51		P101/RS15	
P53/AN1	52		P102/RS16	
P54/AN2	53		P103/RS17	
P55/AN3	54		P104/RS18	
P56/AN4	55		P105/RS19	
P57/AN5	56		P106/RS20	
P58/AN6	57		P107/RS21	
P59/AN7	58		P108/RS22	
P60/FTCI	59		P109/RS23	
P61/FTOA	60		P110/RS24	
P62/FTIA	61		P111/RS25	
P63/FTIB	62		P112/RS26	
P64/FTIC	63		P113/RS27	
P65/FTID	64		P114/RS28	
P66/FTOB/IRQ8	65		P115/RS29	
P67/FTQ7	66		P116/RS30	
P68/AN0	67		P117/RS31	
P69/AN1	68		P118/RS32	
P70/AN0	69		P119/RS33	
P71/AN1	70		P120/RS34	
P72/AN2	71		P121/RS35	
P73/AN3	72		P122/RS36	
P74/AN4	73		P123/RS37	
P75/AN5	74		P124/RS38	
P76/AN6	75		P125/RS39	
P77/AN7	76		P126/RS40	
P78/AN8	77		P127/RS41	
P79/AN9	78		P128/RS42	
P80/ADTRG/RC0	79		P129/RS43	
P81/RS1/IO1	80		P130/RS44	

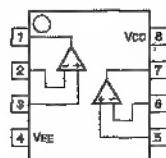




LM358D (T)FLAT PACKAGE LM358DR-E2

DUAL OPERATIONAL AMPLIFIERS
(SINGLE-SUPPLY TYPE)

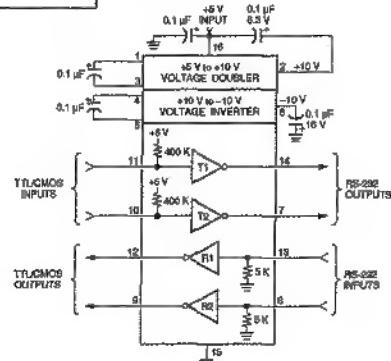
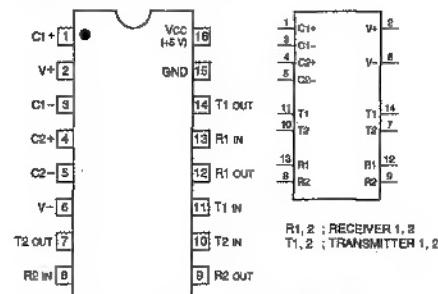
-TOP VIEW-



TYPE	V _{CC} -V _{EE}
626 TYPE	+5 to +36V
2244 TYPE	+2.5 to +36V
2904 TYPE	+3 to +24V
3404 TYPE	+4 to +32V
3414 TYPE	+9 to +10V
4572 TYPE	+4 to +14V
5216 TYPE	+4 to +32V
7022 TYPE	+8 to +16V
75W01 TYPE	+3 to +10V
33172 TYPE	+3 to +44V
OTHERS	+3 to +36V

MAX202CSE (MAXIM) MAX202CSE-TE2

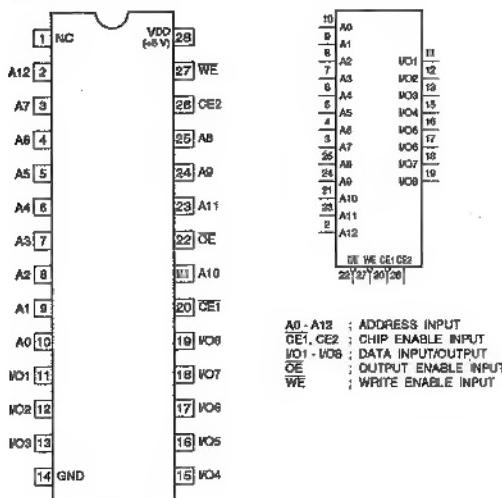
RS-232 TRANSMITTER/RECEIVER
—TOP VIEW—



LC3564SM-10-TLM (SANYO)

C-MOS 64k (8192 × 8)-BIT STATIC RAM

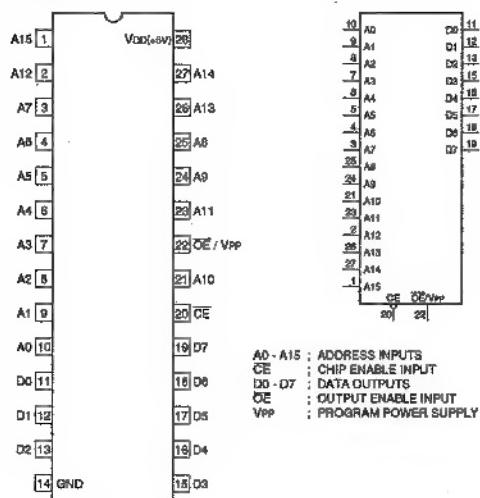
TOP VIEW



M27C512-10F1

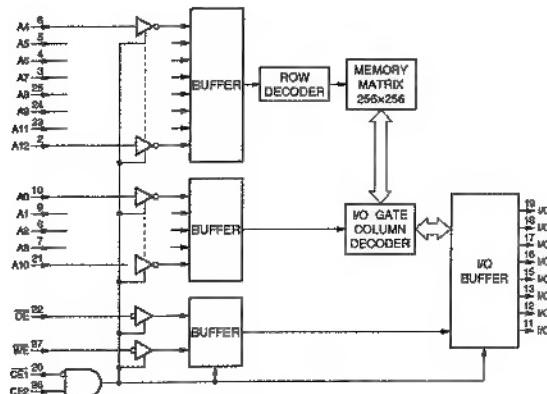
C-MOS 512K (65,536×8)-BIT ERASABLE PROM

TOP VIEW



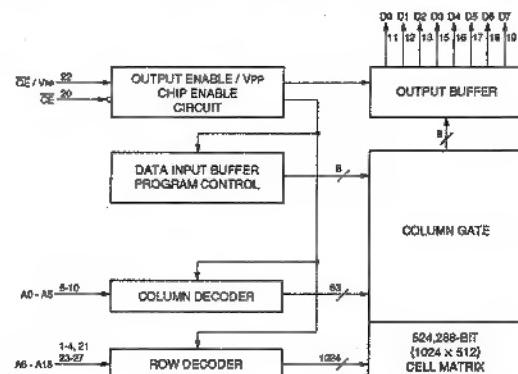
CE1	CE2	OE	WE	MODE	I/O TERMINAL
1	X	X	X	NOT SELECT	HIGH IMPEDANCE
X	0	X	X	NOT SELECT	HIGH IMPEDANCE
0	1	1	1	OUTPUT DISABLE	HIGH IMPEDANCE
0	1	0	1	READ	OUTPUT DATA
0	1	X	0	WRITE	INPUT DATA

0 : LOW LEVEL
1 : HIGH LEVEL
X : DON'T CARE



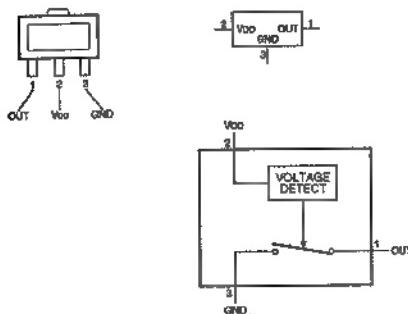
Ain	CE	OE/VPP	VDD	Dn	FUNCTION
Ain 0	0	+5V	DOUT	READ	
Ain 0	1	+5V	Hi-Z	OUTPUT DISABLE	
X 1	X	+5V	Hi-Z	STANDBY	
Ain 0	+12.5V	+6V	DIN	PGM	
Ain 0	0	+6V	DOUT	PGM VERIFY	
X 1	+12.5V	+6V	Hi-Z	PGM INH	

0 : LOW LEVEL
1 : HIGH LEVEL
X : DON'T CARE
Hi-Z : HIGH IMPEDANCE



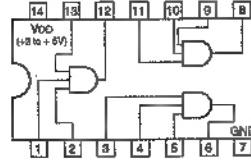
S-8054HN-CB-S (SEIKO I AND E)
S-8054HN-CB-T1

C-MOS VOLTAGE DETECTOR WITH N-CHANNEL OPEN DRAIN OUTPUT
 -TOP VIEW-



SN74HC11ANS (TI)FLAT PACKAGE
SN74HC11ANS-E05

C-MOS 3-INPUT POSITIVE-AND GATE
 -TOP VIEW-



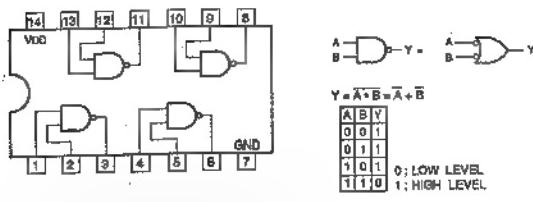
A	B	C	Y
0	0	0	0
0	0	1	0
0	1	0	0
0	1	1	1
1	0	0	1
1	0	1	1
1	1	0	1
1	1	1	1

0 : LOW LEVEL
 1 : HIGH LEVEL

TYPE	V _{DD}
TC74HC11	+2V to +5.5V
OTHER TYPES	+2V to +5V

SN74HC00ANS (TI)FLAT PACKAGE
SN74HC00ANS-E05

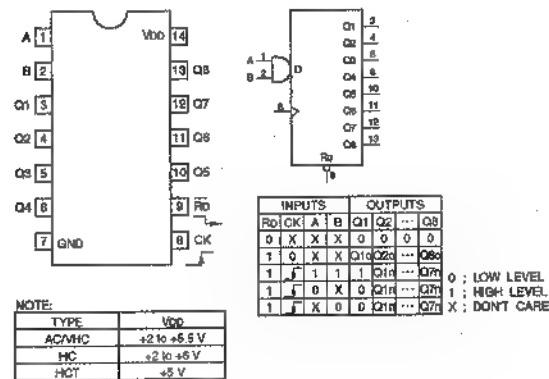
C-MOS QUAD 2-INPUT NAND GATES
 -TOP VIEW-



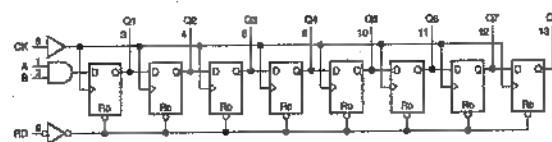
TYPE	V _{DD}
74AC74VHC	+2 to +5.5V
74ACT74HCT/74VHCT	+4.5 to +5.5V
LCX	+2 to +3.6V
OTHER TYPES	+2 to +5V

SN74HC164ANS (TI)FLAT PACKAGE
SN74HC164ANS-E05

C-MOS 8-BIT SERIAL-IN/PARALLEL-OUT SHIFT REGISTER
 -TOP VIEW-

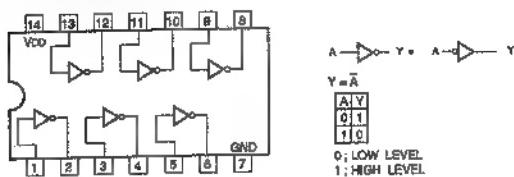


TYPE	V _{DD}
ACMHC	+2 to +5.5V
HC	+2 to +5V
HGT	+5V



SN74HC04ANS (TI)FLAT PACKAGE
SN74HC04ANS-E05

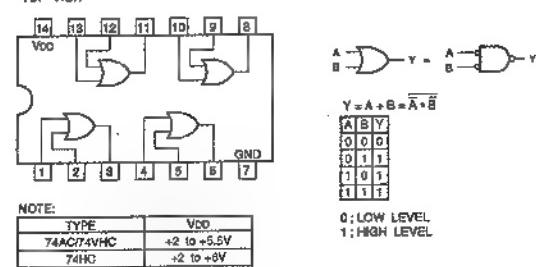
C-MOS HEX INVERTERS
 -TOP VIEW-



TYPE	V _{DD}
74AC74VHC/74VHCT	+2 to +5.5V
74ACT74HCT/74VHCT	+4.5 to +5.5V
74LCX	+2 to +3.6V
OTHER TYPE	+2 to +5V

SN74HC32ANS (TI)FLAT PACKAGE
SN74HC32ANS-E05

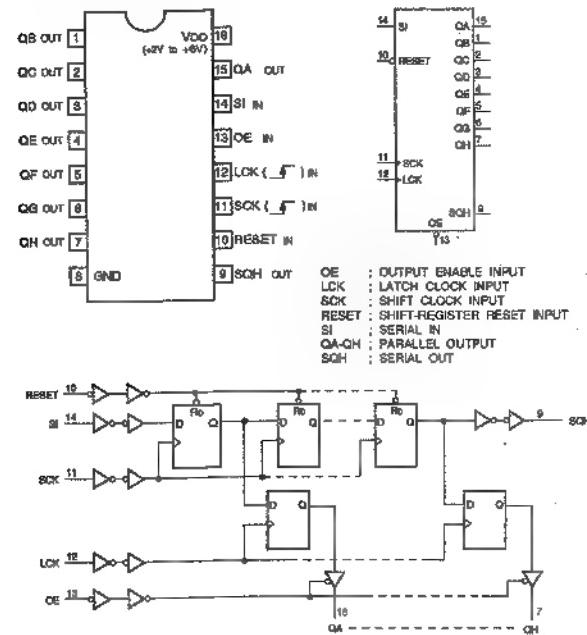
C-MOS QUAD 2-INPUT OR GATES
 -TOP VIEW-



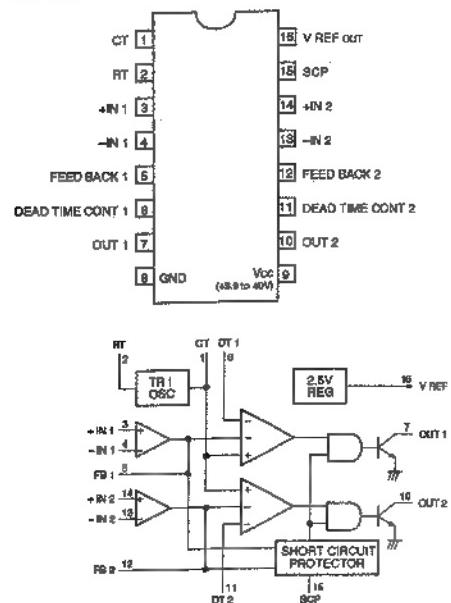
TYPE	V _{DD}
74AC74VHC	+2 to +5.5V
74HC	+2 to +5V
74HCT	+4.5 to +5.5V

SN74HC595ANS (TI)FLAT PACKAGE
SN74HC595ANS-E05

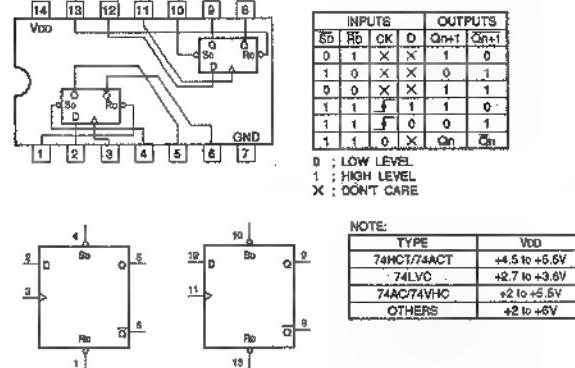
C-MOS 8-BIT SERIAL-INPUT/SERIAL- OR PARALLEL-OUTPUT SHIFT REGISTER WITH LATCHED 3-STATE OUTPUT
-TOP VIEW-


TL1451ACNS (TI)FLAT PACKAGE
TL1451ACNS-E05

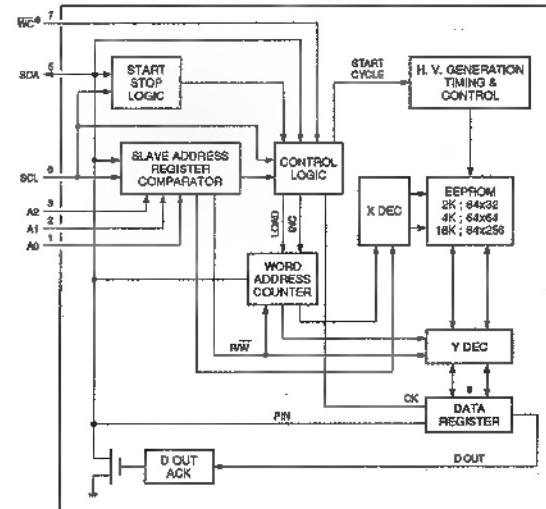
DUAL PWM POWER CONTROLLER
-TOP VIEW-


SN74HC74ANS (TI)FLAT PACKAGE
SN74HC74ANS-E05

C-MOS DUAL D-TYPE FLIP-FLOPS WITH DIRECT SET/RESET
-TOP VIEW-


X24164SIC7000 (XICOR) (16K BIT)FLAT PACKAGE

C-MOS SERIAL EEPROM
-TOP VIEW-



* : TEST (at X24164SIC7000)
NC(at NM24C16LEMB)

SECTION 5 SPARE PARTS

5-1. NOTES ON SPARE PARTS

(1) Safety Related Components Warning

Components marked Δ are critical to safe operation. Therefore, specified parts should be used in the case of replacement.

(2) Standardization of Parts

Repair parts supplied from Sony Parts Center may not be always identical with the parts which actually in use due to "accommodating the improved parts and/or engineering changes" or "standardization of genuine parts".

This manual's exploded views and electrical spare parts list are indicating the part numbers of "the standardized genuine parts at present"

(3) Stock of Parts

Parts marked with "o" SP (Supply Code) column of the spare parts list are not normally required for routine service work. Orders for parts marked with "o" will be processed, but allow for additional delivery time.

(4) Units for Capacitors, Inductors and Resistors

The following units are assumed in schematic diagrams, electrical parts list and exploded views unless otherwise specified.

Capacitors : μF
Inductors : μH
Resistors : Ω

5-1. 補修用部品注意事項

(1) 安全重要部品

Δ 警告

Δ 印のついた部品は安全性を維持するために重要な部品です。したがって、交換する時は必ず指定の部品を使ってください。

(2) 部品の共通化

ソニーから供給される部品は、セットに実装されているものと異なることがあります。これは部品の共通化、改良等によるものです。

分解図や電気部品表には現時点での共通化された部品が記載されています。

(3) 部品の在庫

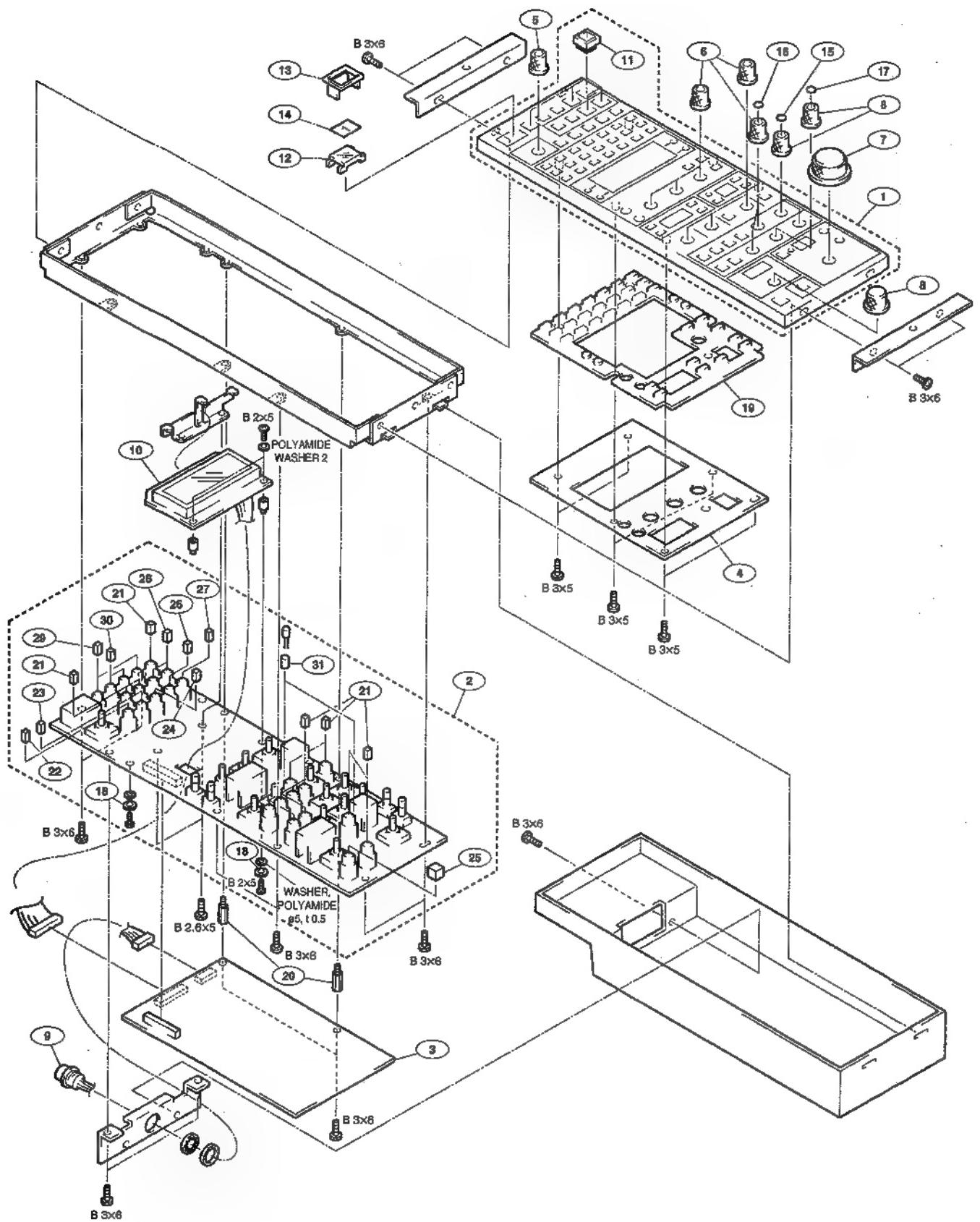
部品表のSP (Supply code) 欄に○で示される部品は交換頻度が低い部品ですので在庫していないことがあります、納期が長くなることがあります。

(4) コンデンサー、インダクター、抵抗の単位

回路図、分解図、電気部品表中、特に明記したもの除き、下記の単位は省略されています。

コンデンサー : μF
インダクター : μH
抵抗 : Ω

5-2. EXPLODED VIEW



No.	Part No.	SP Description
1	A-8278-601-A	■ RCP PANEL ASSY
2	A-8315-093-A	○ MOUNTED CIRCUIT BOARD, CT-192
3	A-8315-095-A	○ MOUNTED CIRCUIT BOARD, CPU-245
4	A-8315-097-A	○ MOUNTED CIRCUIT BOARD, SW-890
5	X-3679-298-1	s KNOB, VOLUME ASSY
6	X-3679-299-1	■ KNOB, VOLUME ASSY
7	X-3679-300-1	s KNOB ASSY
8	X-3679-301-1	s KNOB, VOLUME ASSY
9	1-563-944-11	■ CONNECTOR, 10P MALE "REMOTE"
10	1-801-794-11	s LCD MODULE
11	2-141-006-01	○ GUARD (SQUARE 6), SWITCH
12	2-249-303-00	○ WINDOW (2), REMOTE CONTROL
13	2-249-304-02	○ FRAME(2), WINDOW, REMOTE CONTROL
14	2-249-353-00	s COVER, LAMP
15	2-270-659-00	■ MARKER (B)
16	2-270-660-00	s MARKER (R)
17	2-284-901-00	s MARKER (G)
18	3-509-138-00	■ CLAMP, SPRING
19	3-608-391-02	s SWITCH, RUBBER
20	3-608-402-21	○ SPACER
21	3-708-895-01	s CAP
22	3-708-895-61	s CAP "R"
23	3-708-895-71	s CAP "G"
24	3-708-895-81	s CAP "B"
25	3-708-933-11	s CAP "CALL" (RED)
26	3-708-937-11	■ CAP "SEQ"
27	3-708-937-21	s CAP "ENC"
28	3-708-938-01	s CAP (RED)
29	3-708-939-01	■ CAP (GREEN)
30	3-708-940-01	■ CAP (ORANGE)
31	4-937-336-21	○ HOLDER, LED

{CPU-245 BOARD}

Ref. No.
or Q'ty Part No. SP Description

R18 1-216-057-00 s METAL, CHIP 2.2K 5% 1/10W
 R19 1-216-013-00 s METAL, CHIP 33 5% 1/10W
 R20 1-208-810-11 s METAL, CHIP 15K 0.50% 1/10W
 R21 1-208-806-11 s METAL, CHIP 10K 0.50% 1/10W
 R22 1-216-097-91 s METAL, CHIP 100K 5% 1/10W
 R23 1-216-085-00 s METAL, CHIP 33K 5% 1/10W
 R24 1-208-794-11 s METAL, CHIP 3.3K 0.50% 1/10W
 R25 1-216-049-91 s METAL, CHIP 1K 5% 1/10W
 R26 1-216-025-91 s METAL, CHIP 100 5% 1/10W
 R27 1-216-121-91 s METAL, CHIP 1M 5% 1/10W
 R28 1-216-049-91 s METAL, CHIP 1K 5% 1/10W
 R29 1-216-057-00 s METAL, CHIP 2.2K 5% 1/10W
 R30 1-216-025-91 s METAL, CHIP 100 5% 1/10W
 R31 1-216-025-91 s METAL, CHIP 100 5% 1/10W
 R32 1-216-025-91 s METAL, CHIP 100 5% 1/10W
 R33 1-216-025-91 s METAL, CHIP 100 5% 1/10W
 R34 1-216-085-00 ■ METAL, CHIP 33K 5% 1/10W
 R35 1-216-085-00 ■ METAL, CHIP 33K 5% 1/10W
 R36 1-216-085-00 s METAL, CHIP 33K 5% 1/10W
 R37 1-216-085-00 s METAL, CHIP 33K 5% 1/10W
 R38 1-216-049-91 s METAL, CHIP 1K 5% 1/10W
 R39 1-216-085-00 s METAL, CHIP 33K 5% 1/10W
 R41 1-216-085-00 s METAL, CHIP 33K 5% 1/10W
 R42 1-208-794-11 s METAL, CHIP 3.3K 0.50% 1/10W
 R43 1-216-049-91 s METAL, CHIP 1K 5% 1/10W
 R44 1-216-025-91 s METAL, CHIP 100 5% 1/10W
 R46 1-216-295-00 s METAL, CHIP 0 5% 1/10W
 R47 1-216-085-00 s METAL, CHIP 33K 5% 1/10W
 R48 1-208-806-11 s METAL, CHIP 10K 0.50% 1/10W
 R49 1-216-013-00 s METAL, CHIP 33 5% 1/10W
 R50 1-216-013-00 s METAL, CHIP 33 5% 1/10W
 R51 1-216-013-00 s METAL, CHIP 33 5% 1/10W
 R52 1-216-013-00 s METAL, CHIP 33 5% 1/10W
 R53 1-208-806-11 s METAL, CHIP 10K 0.50% 1/10W
 R54 1-208-806-11 s METAL, CHIP 10K 0.50% 1/10W
 RB1 1-239-309-11 ■ RESISTOR BLOCK, CHIP 100K
 RB2 1-239-309-11 s RESISTOR BLOCK, CHIP 100K
 RB3 1-239-309-11 s RESISTOR BLOCK, CHIP 100K
 RB4 1-239-309-11 s RESISTOR BLOCK, CHIP 100K
 RB5 1-239-308-11 s RESISTOR ARRAY, CHIP 47K
 RB6 1-239-308-11 s RESISTOR ARRAY, CHIP 47K
 RV1 1-237-033-11 s RES, ADJ, METAL 1K
 S2 1-692-270-41 s SWITCH, SLIDE
 S3 1-692-270-41 s SWITCH, SLIDE
 X1 1-760-273-11 s VIBRATOR, CRYSTAL 20.0MHz

CT-192 BOARD

Ref. No.
or Q'ty Part No. SP Description

1pc 3-708-895-01 ■ CAP
 1pc 3-708-895-61 ■ CAP "R"
 1pc 3-708-895-71 ■ CAP "G"
 1pc 3-708-895-81 s CAP "B"
 1pc 3-708-933-11 ■ CAP "CALL" (RED)
 1pc 3-708-937-11 ■ CAP "SEQ"
 1pc 3-708-937-21 ■ CAP "ENC"
 1pc 3-708-938-01 s CAP (RED)
 1pc 3-708-939-01 s CAP (GREEN)
 1pc 3-708-940-01 s CAP (ORANGE)
 C1 1-164-232-11 s CERAMIC, CHIP 0.01uF 10% 50V
 C2 1-164-232-11 s CERAMIC, CHIP 0.01uF 10% 50V
 C3 1-113-642-11 s TANTALUM 47uF 20% 10V
 C4 1-164-232-11 s CERAMIC, CHIP 0.01uF 10% 50V
 C5 1-164-232-11 s CERAMIC, CHIP 0.01uF 10% 50V
 C6 1-164-232-11 s CERAMIC, CHIP 0.01uF 10% 50V
 C7 1-164-232-11 s CERAMIC, CHIP 0.01uF 10% 50V
 C8 1-126-396-11 ■ ELECT, CHIP 47uF 20% 16V
 C9 1-164-232-11 s CERAMIC, CHIP 0.01uF 10% 50V
 C11 1-164-232-11 s CERAMIC, CHIP 0.01uF 10% 50V
 C12 1-104-851-11 ■ TANTALUM, CHIP 10uF 20% 10V
 C13 1-104-851-11 s TANTALUM, CHIP 10uF 20% 10V
 C14 1-163-038-91 s CERAMIC 0.1uF 25V
 C15 1-104-851-11 s TANTALUM, CHIP 10uF 20% 10V
 C16 1-104-851-11 s TANTALUM, CHIP 10uF 20% 10V
 C17 1-163-038-91 s CERAMIC 0.1uF 25V
 C18 1-104-914-11 s TANTALUM 22uF 20% 16V
 C19 1-104-914-11 s TANTALUM 22uF 20% 16V
 C20 1-104-914-11 s TANTALUM 22uF 20% 16V
 C21 1-128-391-11 s ELECT 330uF 20% 6.3V
 C101 1-164-232-11 s CERAMIC, CHIP 0.01uF 10% 50V
 C102 1-164-232-11 s CERAMIC, CHIP 0.01uF 10% 50V
 C103 1-113-642-11 ■ TANTALUM 47uF 20% 10V
 C104 1-164-232-11 s CERAMIC, CHIP 0.01uF 10% 50V
 C105 1-164-232-11 s CERAMIC, CHIP 0.01uF 10% 50V
 C106 1-164-232-11 ■ CERAMIC, CHIP 0.01uF 10% 50V
 C107 1-164-232-11 s CERAMIC, CHIP 0.01uF 10% 50V
 C108 1-126-396-11 ■ ELECT, CHIP 47uF 20% 16V
 C109 1-164-232-11 ■ CERAMIC, CHIP 0.01uF 10% 50V
 C111 1-164-232-11 ■ CERAMIC, CHIP 0.01uF 10% 50V
 C112 1-104-851-11 s TANTALUM, CHIP 10uF 20% 10V
 C113 1-104-851-11 s TANTALUM, CHIP 10uF 20% 10V
 C114 1-104-914-11 s TANTALUM 22uF 20% 16V
 C115 1-104-914-11 s TANTALUM 22uF 20% 16V
 C116 1-128-391-11 s ELECT 330uF 20% 6.3V
 CN1 1-580-723-11 s CONNECTOR, BB 28P, FEMALE
 CN2 1-566-765-11 o PIN, CONNECTOR 10P, MALE
 CN3 1-566-763-11 ■ PIN, CONNECTOR 8P, MALE
 CN4 1-506-467-11 s CONNECTOR, 2P, MALE
 D1 8-719-801-78 s DIODE 1SS184
 D2 8-719-801-78 ■ DIODE 1SS184
 D3 8-719-801-78 ■ DIODE 1SS184
 D4 8-719-801-78 s DIODE 1SS184
 D5 8-719-801-78 s DIODE 1SS184
 D6 8-719-801-78 s DIODE 1SS184
 D7 8-719-801-78 s DIODE 1SS184
 D8 8-719-801-78 s DIODE 1SS184
 D9 8-719-948-06 ■ DIODE LB-202ML
 D10 8-719-948-06 s DIODE LB-202ML

(CT-192 BOARD)

Ref. No.
or Q'ty Part No. SP Description

D11 8-719-948-06 s DIODE LB-202ML
 D12 8-719-981-49 m DIODE GL3ED8
 D13 8-719-981-49 m DIODE GL3ED8
 D14 8-719-981-49 s DIODE GL3ED8
 D15 8-719-981-49 m DIODE GL3ED8

D16 8-719-981-49 s DIODE GL3ED8
 D17 8-719-981-49 s DIODE GL3ED8
 D101 8-719-801-78 s DIODE 1SS184
 D102 8-719-801-78 s DIODE 1SS184
 D103 8-719-801-78 m DIODE 1SS184

D104 8-719-801-78 m DIODE 1SS184
 D105 8-719-801-78 s DIODE 1SS184
 D107 8-719-801-78 s DIODE 1SS184
 D108 8-719-970-07 s DIODE MPG3371X-150
 D109 8-719-970-07 s DIODE MPG3371X-150

D110 8-719-948-06 m DIODE LB-202ML
 D111 8-719-948-06 m DIODE LB-202ML
 D112 8-719-948-06 m DIODE LB-202ML

IC2 8-759-925-74 s IC SN74HC04ANS
 IC4 8-759-268-29 s IC SN74HC595ANS
 IC5 8-759-268-29 m IC SN74HC595ANS
 IC6 8-759-268-29 m IC SN74HC595ANS
 IC7 8-759-268-29 s IC SN74HC595ANS

IC102 8-759-925-74 s IC SN74HC04ANS
 IC104 8-759-268-29 m IC SN74HC595ANS
 IC105 8-759-268-29 m IC SN74HC595ANS
 IC106 8-759-268-29 m IC SN74HC595ANS

L1 1-410-381-11 s INDUCTOR CHIP 10uH
 L2 1-410-381-11 s INDUCTOR CHIP 10uH
 L4 1-410-381-11 s INDUCTOR CHIP 10uH
 L5 1-410-381-11 m INDUCTOR CHIP 10uH
 L6 1-410-381-11 s INDUCTOR CHIP 10uH
 L7 1-410-381-11 m INDUCTOR CHIP 10uH
 L8 1-410-381-11 s INDUCTOR CHIP 10uH
 L101 1-410-381-11 m INDUCTOR CHIP 10uH
 L103 1-410-381-11 s INDUCTOR CHIP 10uH
 L104 1-410-381-11 s INDUCTOR CHIP 10uH
 L105 1-410-381-11 s INDUCTOR CHIP 10uH
 L106 1-410-381-11 s INDUCTOR CHIP 10uH

Q1 8-729-159-65 s TRANSISTOR 2SD596-DV5
 Q2 8-729-159-65 s TRANSISTOR 2SD596-DV5
 Q3 8-729-159-65 s TRANSISTOR 2SD596-DV5
 Q4 8-729-159-65 s TRANSISTOR 2SD596-DV5
 Q5 8-729-159-65 m TRANSISTOR 2SD596-DV5

Q6 8-729-159-65 s TRANSISTOR 2SD596-DV5
 Q7 8-729-159-65 m TRANSISTOR 2SD596-DV5
 Q8 8-729-159-65 s TRANSISTOR 2SD596-DV5
 Q9 8-729-159-65 m TRANSISTOR 2SD596-DV5
 Q10 8-729-159-65 s TRANSISTOR 2SD596-DV5

Q11 8-729-159-65 s TRANSISTOR 2SD596-DV5
 Q12 8-729-159-65 s TRANSISTOR 2SD596-DV5
 Q13 8-729-159-65 s TRANSISTOR 2SD596-DV5
 Q14 8-729-159-65 s TRANSISTOR 2SD596-DV5
 Q16 8-729-900-52 m TRANSISTOR DTC114YK

Q17 8-729-900-52 m TRANSISTOR DTC114YK
 Q18 8-729-900-52 s TRANSISTOR DTC114YK
 Q19 8-729-900-52 m TRANSISTOR DTC114YK
 Q20 8-729-900-52 s TRANSISTOR DTC114YK

(CT-192 BOARD)

Ref. No.
or Q'ty Part No. SP Description

Q21 8-729-900-52 s TRANSISTOR DTC114YK
 Q22 8-729-900-52 m TRANSISTOR DTC114YK
 Q23 8-729-900-52 m TRANSISTOR DTC114YK
 Q24 8-729-900-52 s TRANSISTOR DTC114YK
 Q25 8-729-900-52 m TRANSISTOR DTC114YK

Q26 8-729-900-52 s TRANSISTOR DTC114YK
 Q27 8-729-900-52 s TRANSISTOR DTC114YK
 Q28 8-729-900-52 s TRANSISTOR DTC114YK
 Q29 8-729-900-52 s TRANSISTOR DTC114YK
 Q30 8-729-216-22 m TRANSISTOR 2SA1162

Q31 8-729-900-52 m TRANSISTOR DTC114YK
 Q32 8-729-900-52 s TRANSISTOR DTC114YK
 Q33 8-729-900-52 s TRANSISTOR DTC114YK
 Q34 8-729-900-52 s TRANSISTOR DTC114YK
 Q35 8-729-159-65 s TRANSISTOR 2SD596-DV5

Q36 8-729-159-65 s TRANSISTOR 2SD596-DV5
 Q37 8-729-807-51 m TRANSISTOR 2SD1623-S
 Q101 8-729-159-65 s TRANSISTOR 2SD596-DV5
 Q102 8-729-159-65 s TRANSISTOR 2SD596-DV5
 Q103 8-729-159-65 s TRANSISTOR 2SD596-DV5

Q104 8-729-159-65 s TRANSISTOR 2SD596-DV5
 Q105 8-729-159-65 s TRANSISTOR 2SD596-DV5
 Q106 8-729-159-65 s TRANSISTOR 2SD596-DV5
 Q107 8-729-159-65 s TRANSISTOR 2SD596-DV5
 Q108 8-729-159-65 m TRANSISTOR 2SD596-DV5

Q109 8-729-159-65 m TRANSISTOR 2SD596-DV5
 Q110 8-729-159-65 s TRANSISTOR 2SD596-DV5
 Q111 8-729-159-65 m TRANSISTOR 2SD596-DV5
 Q112 8-729-159-65 s TRANSISTOR 2SD596-DV5
 Q113 8-729-159-65 m TRANSISTOR 2SD596-DV5

Q114 8-729-159-65 s TRANSISTOR 2SD596-DV5
 Q115 8-729-900-52 s TRANSISTOR DTC114YK
 Q116 8-729-900-52 s TRANSISTOR DTC114YK
 Q117 8-729-900-52 s TRANSISTOR DTC114YK
 Q118 8-729-900-52 s TRANSISTOR DTC114YK

Q119 8-729-900-52 m TRANSISTOR DTC114YK
 Q120 8-729-900-52 m TRANSISTOR DTC114YK
 Q121 8-729-900-52 s TRANSISTOR DTC114YK
 Q122 8-729-900-52 s TRANSISTOR DTC114YK
 Q123 8-729-900-52 m TRANSISTOR DTC114YK

Q125 8-729-900-52 s TRANSISTOR DTC114YK
 Q127 8-729-900-52 m TRANSISTOR DTC114YK
 Q128 8-729-900-52 m TRANSISTOR DTC114YK
 Q129 8-729-900-52 s TRANSISTOR DTC114YK

R1 1-216-049-91 m METAL, CHIP1K 5% 1/10W
 R2 1-216-121-91 s METAL, CHIP1M 5% 1/10W
 R3 1-216-085-00 s METAL, CHIP 33K 5% 1/10W
 R4 1-216-085-00 m METAL, CHIP 33K 5% 1/10W
 R5 1-216-085-00 s METAL, CHIP 33K 5% 1/10W

R6 1-216-085-00 s METAL, CHIP 33K 5% 1/10W
 R7 1-216-097-91 m METAL, CHIP 100K 5% 1/10W
 R8 1-216-097-91 m METAL, CHIP 100K 5% 1/10W
 R9 1-216-097-91 s METAL, CHIP 100K 5% 1/10W
 R10 1-216-097-91 s METAL, CHIP 100K 5% 1/10W

R11 1-216-097-91 m METAL, CHIP 100K 5% 1/10W
 R12 1-216-097-91 s METAL, CHIP 100K 5% 1/10W
 R13 1-216-097-91 s METAL, CHIP 100K 5% 1/10W
 R14 1-216-097-91 s METAL, CHIP 100K 5% 1/10W
 R15 1-216-073-00 s METAL, CHIP 10K 5% 1/10W

(CT-192 BOARD)

Ref. No.
or Q'ty Part No. SP Description

R16 1-216-073-00 s METAL, CHIP 10K 5% 1/10W
 R17 1-216-073-00 s METAL, CHIP 10K 5% 1/10W
 R18 1-216-073-00 ■ METAL, CHIP 10K 5% 1/10W
 R19 1-216-073-00 s METAL, CHIP 10K 5% 1/10W
 R20 1-216-073-00 s METAL, CHIP 10K 5% 1/10W

R21 1-216-073-00 s METAL, CHIP 10K 5% 1/10W
 R22 1-216-073-00 s METAL, CHIP 10K 5% 1/10W
 R23 1-216-073-00 ■ METAL, CHIP 10K 5% 1/10W
 R24 1-216-073-00 s METAL, CHIP 10K 5% 1/10W
 R25 1-216-073-00 ■ METAL, CHIP 10K 5% 1/10W

R26 1-216-073-00 s METAL, CHIP 10K 5% 1/10W
 R27 1-216-073-00 s METAL, CHIP 10K 5% 1/10W
 R28 1-216-073-00 s METAL, CHIP 10K 5% 1/10W
 R29 1-216-073-00 s METAL, CHIP 10K 5% 1/10W
 R30 1-216-073-00 s METAL, CHIP 10K 5% 1/10W

R31 1-216-061-00 s METAL, CHIP 3.3K 5% 1/10W
 R32 1-216-061-00 s METAL, CHIP 3.3K 5% 1/10W
 R33 1-216-061-00 s METAL, CHIP 3.3K 5% 1/10W
 R34 1-216-061-00 s METAL, CHIP 3.3K 5% 1/10W
 R35 1-216-061-00 s METAL, CHIP 3.3K 5% 1/10W

R36 1-216-061-00 s METAL, CHIP 3.3K 5% 1/10W
 R37 1-216-061-00 ■ METAL, CHIP 3.3K 5% 1/10W
 R38 1-216-061-00 s METAL, CHIP 3.3K 5% 1/10W
 R39 1-216-013-00 s METAL, CHIP 33 5% 1/10W
 R40 1-216-013-00 s METAL, CHIP 33 5% 1/10W

R41 1-216-013-00 s METAL, CHIP 33 5% 1/10W
 R42 1-216-013-00 s METAL, CHIP 33 5% 1/10W
 R43 1-216-013-00 s METAL, CHIP 33 5% 1/10W
 R44 1-216-013-00 s METAL, CHIP 33 5% 1/10W
 R45 1-216-013-00 s METAL, CHIP 33 5% 1/10W

R46 1-216-013-00 s METAL, CHIP 33 5% 1/10W
 R47 1-216-041-00 s METAL, CHIP 470 5% 1/10W
 R48 1-216-041-00 s METAL, CHIP 470 5% 1/10W
 R49 1-216-041-00 s METAL, CHIP 470 5% 1/10W
 R50 1-216-041-00 ■ METAL, CHIP 470 5% 1/10W

R51 1-216-041-00 s METAL, CHIP 470 5% 1/10W
 R52 1-216-041-00 s METAL, CHIP 470 5% 1/10W
 R54 1-216-017-91 ■ METAL, CHIP 47 5% 1/10W
 R55 1-216-023-00 s METAL, CHIP 82 5% 1/10W
 R56 1-216-023-00 ■ METAL, CHIP 82 5% 1/10W

R57 1-216-017-91 s METAL, CHIP 47 5% 1/10W
 R58 1-216-023-00 s METAL, CHIP 82 5% 1/10W
 R59 1-216-023-00 s METAL, CHIP 82 5% 1/10W
 R60 1-216-023-00 s METAL, CHIP 82 5% 1/10W
 R61 1-216-031-00 s METAL, CHIP 180 5% 1/10W

R62 1-216-031-00 s METAL, CHIP 180 5% 1/10W
 R63 1-216-023-00 s METAL, CHIP 82 5% 1/10W
 R64 1-216-023-00 ■ METAL, CHIP 82 5% 1/10W
 R65 1-216-023-00 ■ METAL, CHIP 82 5% 1/10W
 R66 1-216-023-00 s METAL, CHIP 82 5% 1/10W

R67 1-216-023-00 s METAL, CHIP 82 5% 1/10W
 R68 1-216-049-91 s METAL, CHIP 1K 5% 1/10W
 R69 1-216-077-00 ■ METAL, CHIP 15K 5% 1/10W
 R70 1-216-061-00 s METAL, CHIP 3.3K 5% 1/10W
 R71 1-216-055-00 s METAL, CHIP 1.8K 5% 1/10W

R72 1-216-033-00 s METAL, CHIP 220 5% 1/10W
 R73 1-216-023-00 s METAL, CHIP 82 5% 1/10W
 R74 1-216-023-00 ■ METAL, CHIP 82 5% 1/10W
 R75 1-216-023-00 s METAL, CHIP 82 5% 1/10W

(CT-192 BOARD)

Ref. No.
or Q'ty Part No. SP Description

R76 1-216-023-00 s METAL, CHIP 82 5% 1/10W
 R77 1-216-061-00 ■ METAL, CHIP 3.3K 5% 1/10W
 R78 1-216-061-00 s METAL, CHIP 3.3K 5% 1/10W
 R79 1-216-025-91 s METAL, CHIP 100 5% 1/10W
 R80 1-216-025-91 ■ METAL, CHIP 100 5% 1/10W

R81 1-216-025-91 s METAL, CHIP 100 5% 1/10W
 R82 1-216-025-91 s METAL, CHIP 100 5% 1/10W
 R83 1-216-025-91 s METAL, CHIP 100 5% 1/10W
 R84 1-216-025-91 ■ METAL, CHIP 100 5% 1/10W
 R85 1-216-025-91 s METAL, CHIP 100 5% 1/10W

R86 1-216-025-91 s METAL, CHIP 100 5% 1/10W
 R87 1-216-025-91 ■ METAL, CHIP 100 5% 1/10W
 R88 1-216-025-91 ■ METAL, CHIP 100 5% 1/10W
 R89 1-216-025-91 ■ METAL, CHIP 100 5% 1/10W
 R90 1-216-025-91 ■ METAL, CHIP 100 5% 1/10W

R91 1-216-001-00 s METAL, CHIP 10 5% 1/10W
 R92 1-216-001-00 s METAL, CHIP 10 5% 1/10W
 R93 1-216-001-00 ■ METAL, CHIP 10 5% 1/10W
 R94 1-216-001-00 ■ METAL, CHIP 10 5% 1/10W
 R101 1-216-049-91 ■ METAL, CHIP 1K 5% 1/10W

R102 1-216-121-91 ■ METAL, CHIP 1M 5% 1/10W
 R103 1-216-085-00 s METAL, CHIP 33K 5% 1/10W
 R104 1-216-085-00 ■ METAL, CHIP 33K 5% 1/10W
 R105 1-216-085-00 s METAL, CHIP 33K 5% 1/10W
 R106 1-216-085-00 s METAL, CHIP 33K 5% 1/10W

R107 1-216-097-91 s METAL, CHIP 100K 5% 1/10W
 R108 1-216-097-91 s METAL, CHIP 100K 5% 1/10W
 R109 1-216-097-91 s METAL, CHIP 100K 5% 1/10W
 R110 1-216-097-91 ■ METAL, CHIP 100K 5% 1/10W
 R111 1-216-097-91 s METAL, CHIP 100K 5% 1/10W

R112 1-216-097-91 s METAL, CHIP 100K 5% 1/10W
 R113 1-216-097-91 s METAL, CHIP 100K 5% 1/10W
 R114 1-216-097-91 ■ METAL, CHIP 100K 5% 1/10W
 R115 1-216-073-00 s METAL, CHIP 10K 5% 1/10W
 R116 1-216-073-00 s METAL, CHIP 10K 5% 1/10W

R117 1-216-073-00 ■ METAL, CHIP 10K 5% 1/10W
 R118 1-216-073-00 s METAL, CHIP 10K 5% 1/10W
 R119 1-216-073-00 s METAL, CHIP 10K 5% 1/10W
 R120 1-216-073-00 ■ METAL, CHIP 10K 5% 1/10W
 R121 1-216-073-00 ■ METAL, CHIP 10K 5% 1/10W

R122 1-216-073-00 ■ METAL, CHIP 10K 5% 1/10W
 R123 1-216-073-00 s METAL, CHIP 10K 5% 1/10W
 R124 1-216-073-00 ■ METAL, CHIP 10K 5% 1/10W
 R125 1-216-073-00 s METAL, CHIP 10K 5% 1/10W
 R126 1-216-073-00 s METAL, CHIP 10K 5% 1/10W

R127 1-216-073-00 ■ METAL, CHIP 10K 5% 1/10W
 R128 1-216-073-00 s METAL, CHIP 10K 5% 1/10W
 R129 1-216-073-00 s METAL, CHIP 10K 5% 1/10W
 R130 1-216-073-00 ■ METAL, CHIP 10K 5% 1/10W
 R131 1-216-061-00 s METAL, CHIP 3.3K 5% 1/10W

R132 1-216-061-00 ■ METAL, CHIP 3.3K 5% 1/10W
 R133 1-216-061-00 ■ METAL, CHIP 3.3K 5% 1/10W
 R134 1-216-061-00 s METAL, CHIP 3.3K 5% 1/10W
 R135 1-216-061-00 ■ METAL, CHIP 3.3K 5% 1/10W
 R136 1-216-061-00 s METAL, CHIP 3.3K 5% 1/10W

R137 1-216-061-00 ■ METAL, CHIP 3.3K 5% 1/10W
 R138 1-216-061-00 ■ METAL, CHIP 3.3K 5% 1/10W
 R139 1-216-013-00 s METAL, CHIP 33 5% 1/10W
 R140 1-216-013-00 s METAL, CHIP 33 5% 1/10W

(CT-192 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
R141	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R142	1-216-013-00	m METAL, CHIP 33 5% 1/10W
R143	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R144	1-216-013-00	m METAL, CHIP 33 5% 1/10W
R145	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R146	1-216-013-00	s METAL, CHIP 33 5% 1/10W
R147	1-216-041-00	s METAL, CHIP 470 5% 1/10W
R148	1-216-041-00	s METAL, CHIP 470 5% 1/10W
R149	1-216-041-00	m METAL, CHIP 470 5% 1/10W
R150	1-216-041-00	s METAL, CHIP 470 5% 1/10W
R151	1-216-041-00	s METAL, CHIP 470 5% 1/10W
R152	1-216-041-00	s METAL, CHIP 470 5% 1/10W
R153	1-216-023-00	s METAL, CHIP 82 5% 1/10W
R154	1-216-023-00	m METAL, CHIP 82 5% 1/10W
R155	1-216-023-00	s METAL, CHIP 82 5% 1/10W
R156	1-216-023-00	m METAL, CHIP 82 5% 1/10W
R157	1-216-023-00	s METAL, CHIP 82 5% 1/10W
R158	1-216-023-00	m METAL, CHIP 82 5% 1/10W
R159	1-216-023-00	m METAL, CHIP 82 5% 1/10W
R160	1-216-023-00	s METAL, CHIP 82 5% 1/10W
R161	1-216-023-00	s METAL, CHIP 82 5% 1/10W
R163	1-216-025-91	s METAL, CHIP 100 5% 1/10W
R165	1-216-023-00	s METAL, CHIP 82 5% 1/10W
R166	1-216-023-00	s METAL, CHIP 82 5% 1/10W
R167	1-216-023-00	s METAL, CHIP 82 5% 1/10W
RV1	1-238-255-21	s RES, VAR, CARBON 10K
RV2	1-238-255-21	s RES, VAR, CARBON 10K
RV3	1-238-255-21	s RES, VAR, CARBON 10K
RV4	1-238-255-21	s RES, VAR, CARBON 10K
S1	1-475-218-11	m ENCODER, ROTARY
S2	1-475-218-11	s ENCODER, ROTARY
S3	1-475-218-11	m ENCODER, ROTARY
S4	1-475-218-11	s ENCODER, ROTARY
S5	1-475-218-11	s ENCODER, ROTARY
S6	1-475-218-11	s ENCODER, ROTARY
S8	1-762-138-11	s SWITCH, PUSH
S9	1-762-139-11	s SWITCH, PUSH
S10	1-762-139-11	s SWITCH, PUSH
S11	1-762-138-11	s SWITCH, PUSH
S12	1-762-042-11	s SWITCH, PUSH
S13	1-762-042-11	s SWITCH, PUSH
S14	1-762-042-11	s SWITCH, PUSH
S15	1-762-137-11	s SWITCH, PUSH
S16	1-762-137-11	s SWITCH, PUSH
S17	1-762-042-71	s SWITCH, PUSH
S18	1-762-042-81	s SWITCH, PUSH
S19	1-762-042-91	s SWITCH, PUSH
S20	1-762-136-21	s SWITCH, PUSH
S21	1-762-136-31	s SWITCH, PUSH
S22	1-771-110-11	m SWITCH, ROTARY
S101	1-475-218-11	s ENCODER, ROTARY
S102	1-475-218-11	s ENCODER, ROTARY
S103	1-475-218-11	s ENCODER, ROTARY
S104	1-475-218-11	s ENCODER, ROTARY
S105	1-475-218-11	s ENCODER, ROTARY
S106	1-475-218-11	s ENCODER, ROTARY
S107	1-475-218-11	s ENCODER, ROTARY
S108	1-762-042-11	s SWITCH, PUSH
S109	1-762-042-11	s SWITCH, PUSH

SW-890 BOARD

Ref. No. or Q'ty	Part No.	SP Description
1pc	A-8315-097-A o	MOUNTED CIRCUIT BOARD, SW-890
D201	8-719-801-78	s DIODE 1SS184
D202	8-719-801-78	m DIODE 1SS184
D203	8-719-801-78	s DIODE 1SS184
D204	8-719-801-78	s DIODE 1SS184
D205	8-719-801-78	s DIODE 1SS184
D206	8-719-801-78	m DIODE 1SS184
D207	8-719-801-78	m DIODE 1SS184
D208	8-719-801-78	s DIODE 1SS184
D209	8-719-801-78	s DIODE 1SS184
D210	8-719-801-78	s DIODE 1SS184
D211	8-719-801-78	s DIODE 1SS184
D212	8-719-801-78	s DIODE 1SS184
D213	8-719-801-78	s DIODE 1SS184
D214	8-719-801-78	m DIODE 1SS184
D215	8-719-801-78	s DIODE 1SS184
D216	8-719-801-78	m DIODE 1SS184
D217	8-719-801-78	s DIODE 1SS184
D218	8-719-801-78	s DIODE 1SS184
D219	8-719-801-78	s DIODE 1SS184
D220	8-719-801-78	m DIODE 1SS184
S201	1-572-473-11	s SWITCH, PUSH
S202	1-572-473-11	m SWITCH, PUSH
S203	1-572-473-11	s SWITCH, PUSH
S204	1-572-473-11	m SWITCH, PUSH
S205	1-572-473-11	s SWITCH, PUSH
S206	1-572-473-11	m SWITCH, PUSH
S207	1-572-473-11	s SWITCH, PUSH
S208	1-572-473-11	m SWITCH, PUSH
S209	1-572-473-11	s SWITCH, PUSH
S210	1-572-473-11	s SWITCH, PUSH
S211	1-572-473-11	s SWITCH, PUSH
S212	1-572-473-11	s SWITCH, PUSH
S213	1-572-473-11	s SWITCH, PUSH
S214	1-572-473-11	s SWITCH, PUSH
S215	1-572-473-11	s SWITCH, PUSH
S216	1-572-473-11	s SWITCH, PUSH
S217	1-572-473-11	s SWITCH, PUSH
S218	1-572-473-11	s SWITCH, PUSH
S219	1-572-473-11	s SWITCH, PUSH
S220	1-572-473-11	s SWITCH, PUSH
S221	1-572-473-11	s SWITCH, PUSH
S222	1-572-473-11	m SWITCH, PUSH
S223	1-572-473-11	m SWITCH, PUSH
S224	1-572-473-11	s SWITCH, PUSH
S226	1-771-113-11	m SWITCH, PUSH
S227	1-771-113-11	m SWITCH, PUSH
S228	1-771-113-11	s SWITCH, PUSH
S229	1-771-113-11	s SWITCH, PUSH
S230	1-572-473-11	s SWITCH, PUSH
S231	1-572-473-11	m SWITCH, PUSH
S232	1-572-473-11	s SWITCH, PUSH
S233	1-572-473-11	s SWITCH, PUSH
S234	1-572-473-11	s SWITCH, PUSH
S235	1-572-473-11	s SWITCH, PUSH
S236	1-572-473-11	s SWITCH, PUSH

FRAME

Ref. No.
or Q'ty Part No. SP Description

1pc 1-801-794-11 s LCD MODULE
CN100 1-563-944-11 s CONNECTOR, 10P MALE "REMOTE"
TO CN1/CPU-245 BOARD
 1-569-201-11 o HOUSING, 8P
 1-569-193-11 o CONTACT, AWG24-30
TO CN3/CT-192 BAORD
 1-569-195-11 o HOUSING, CONNECTOR 2P
 1-569-193-11 o CONTACT, AWG24-30
TO CN4/CPU-245 BAORD
 1-569-207-11 o HOUSING, 14P
 1-569-193-11 o CONTACT, AWG24-30
TO W24/LCD MODULE
 1-562-747-11 o HOUSING, 14P
 1-564-831-11 o CONTACT, FEMALE

SUPPLIED ACCESORIES

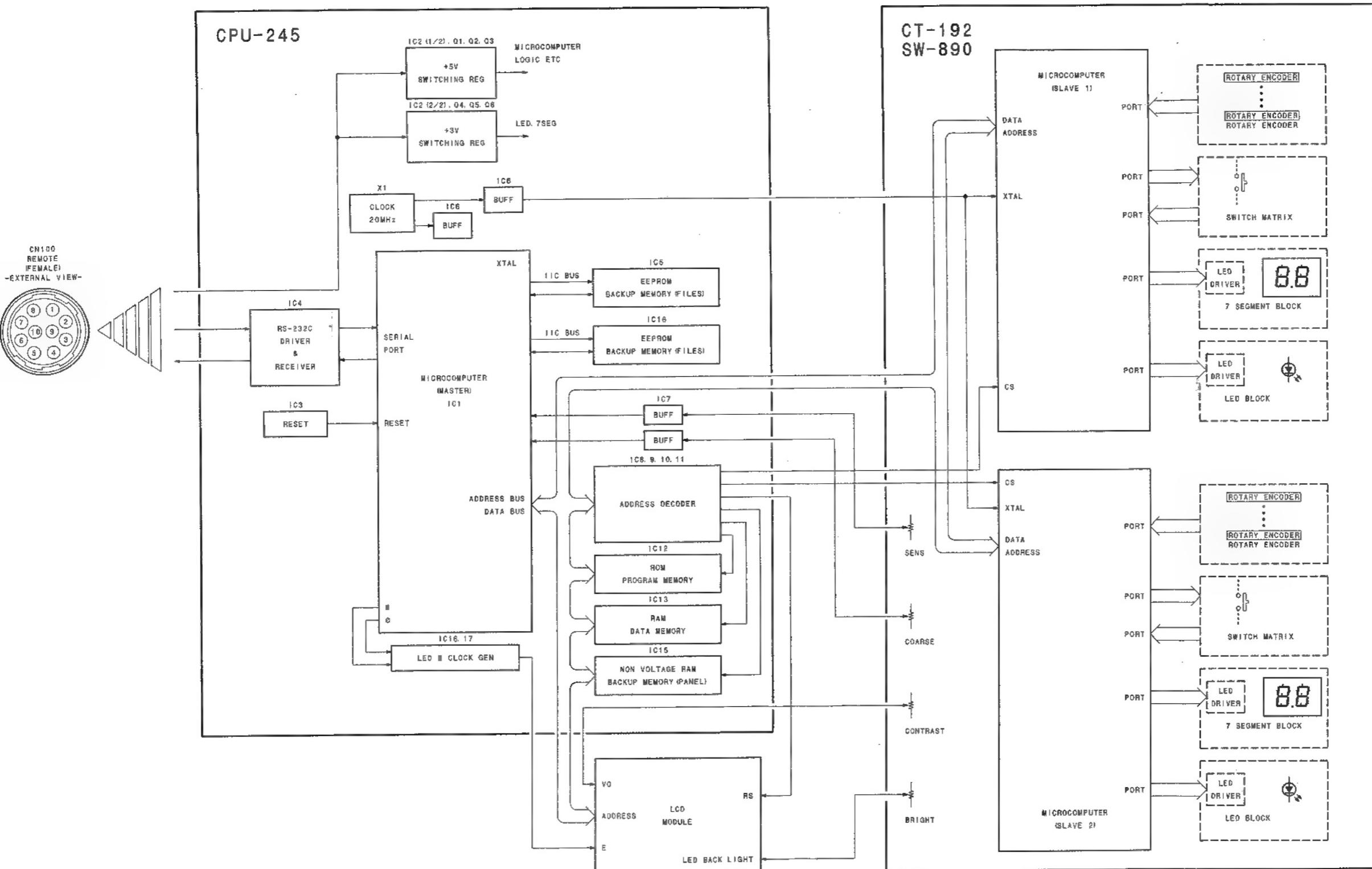
Ref. No.
or Q'ty Part No. SP Description

1pc 1-574-141-21 s CABLE ASSY
1pc 2-249-307-00 s INDICATOR, REMOTE
2pcs 3-703-225-00 s WASHER (4 DIA.), ORNAMENTAL
1pc 3-859-859-01 m MANUAL, INSTRUCTION (JAPANESE)
1pc 3-859-859-11 s MANUAL, INSTRUCTION (ENGLISH)

1pc 3-859-859-21 m MANUAL, INSTRUCTION (FRENCH)
1pc 3-859-859-31 m MANUAL, INSTRUCTION (GERMAN)
1pc 3-859-859-41 s MANUAL, INSTRUCTION (ITALIAN)
1pc 3-859-859-51 m MANUAL, INSTRUCTION (CHINESE)
1pcs 7-682-361-04 s SCREW +RK 4X8

OVERALL BLOCK **OVERALL BLOCK**

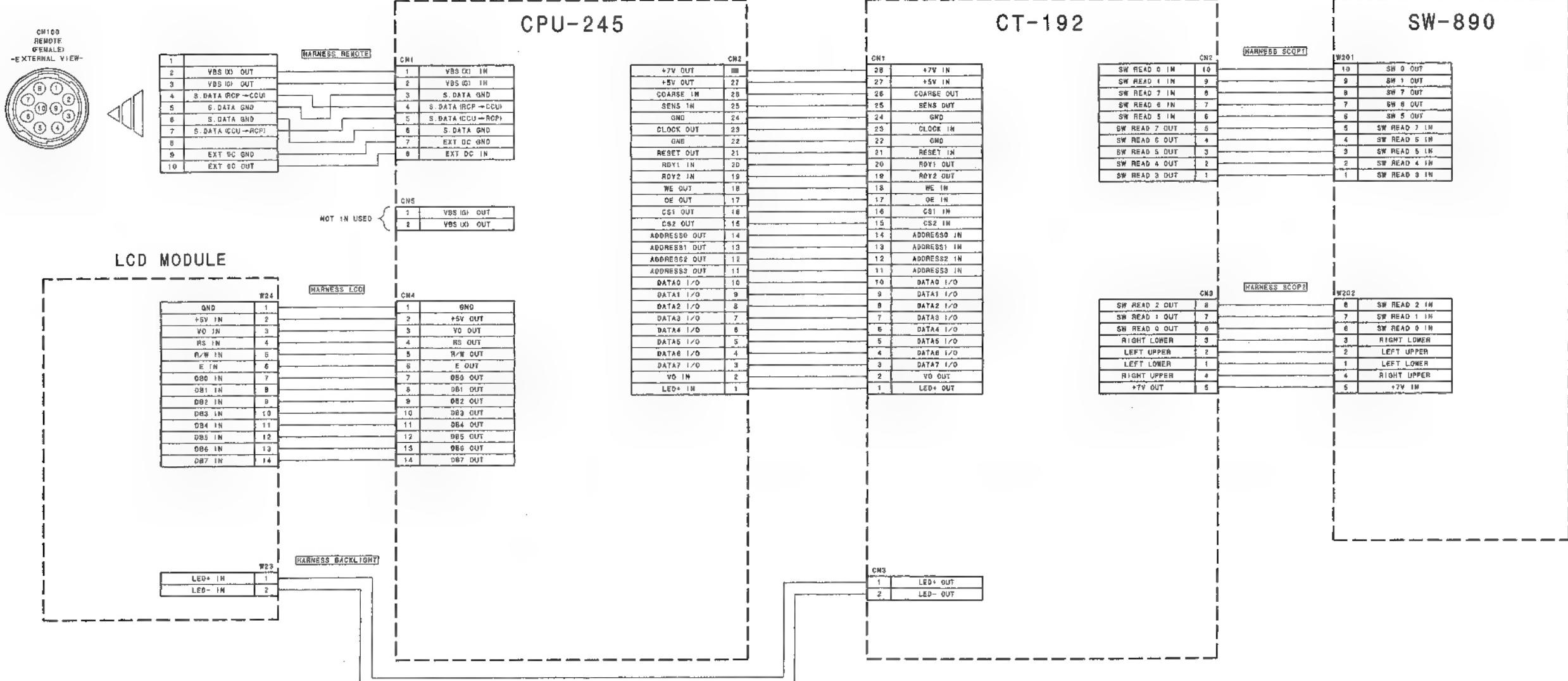
SECTION 6
BLOCK DIAGRAM



OVERALL BLOCK
B-RCPTX7-OBLOCK/M

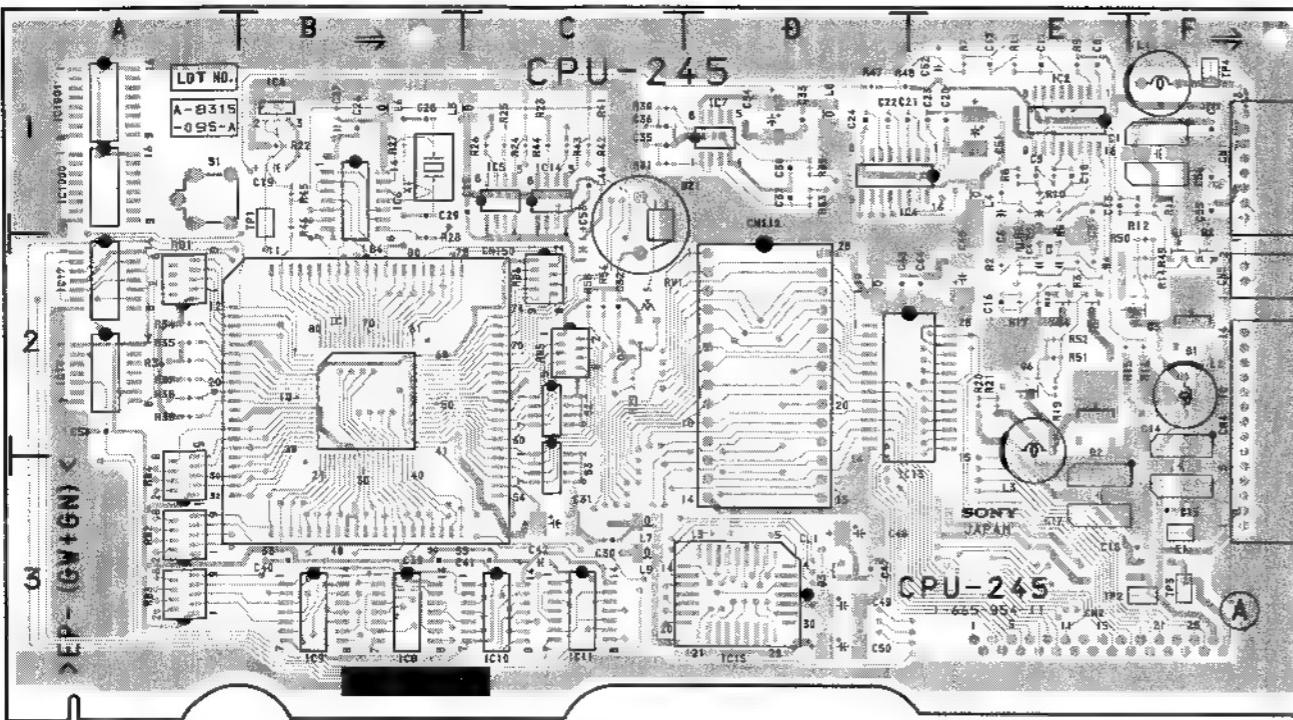
FRAME FRAME

SECTION 7
SCHEMATIC DIAGRAMS AND BOARD ILLUSTRATIONS

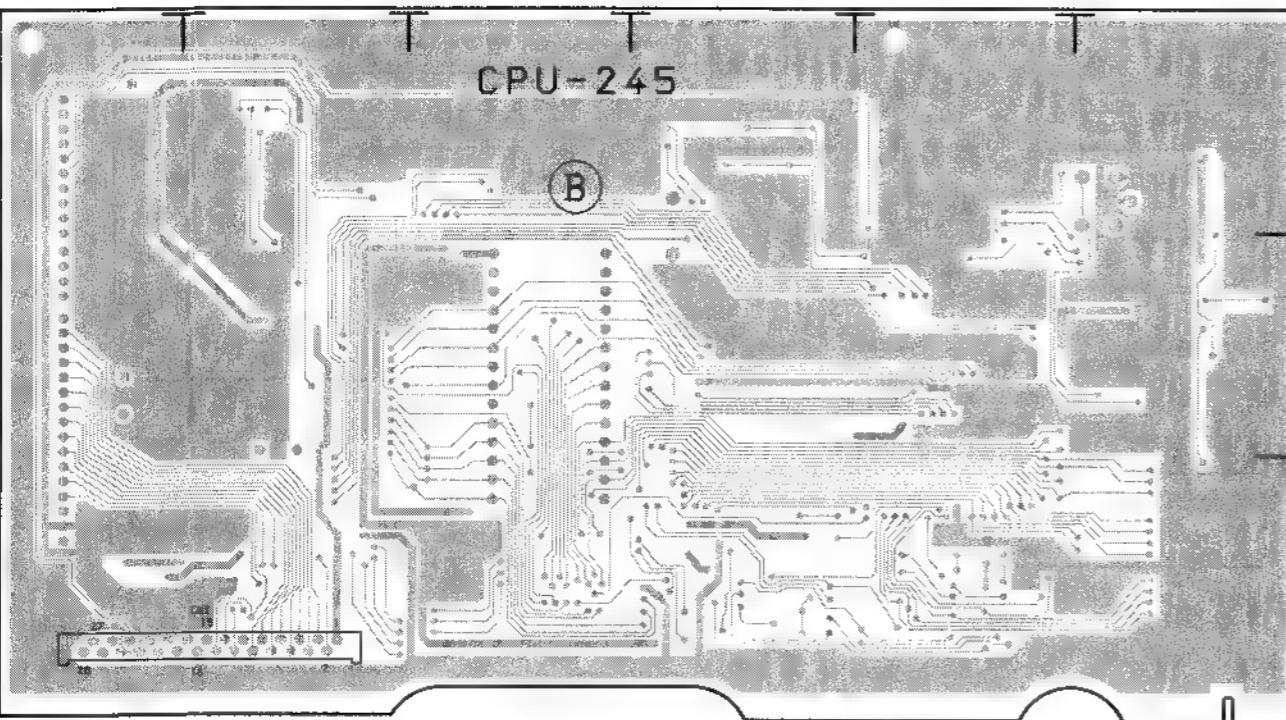


FRAME
B-RCPTX7-FRAME/M

CPU-245 **CPU-245**



CPU-245 -A SIDE-
1-665-954-11

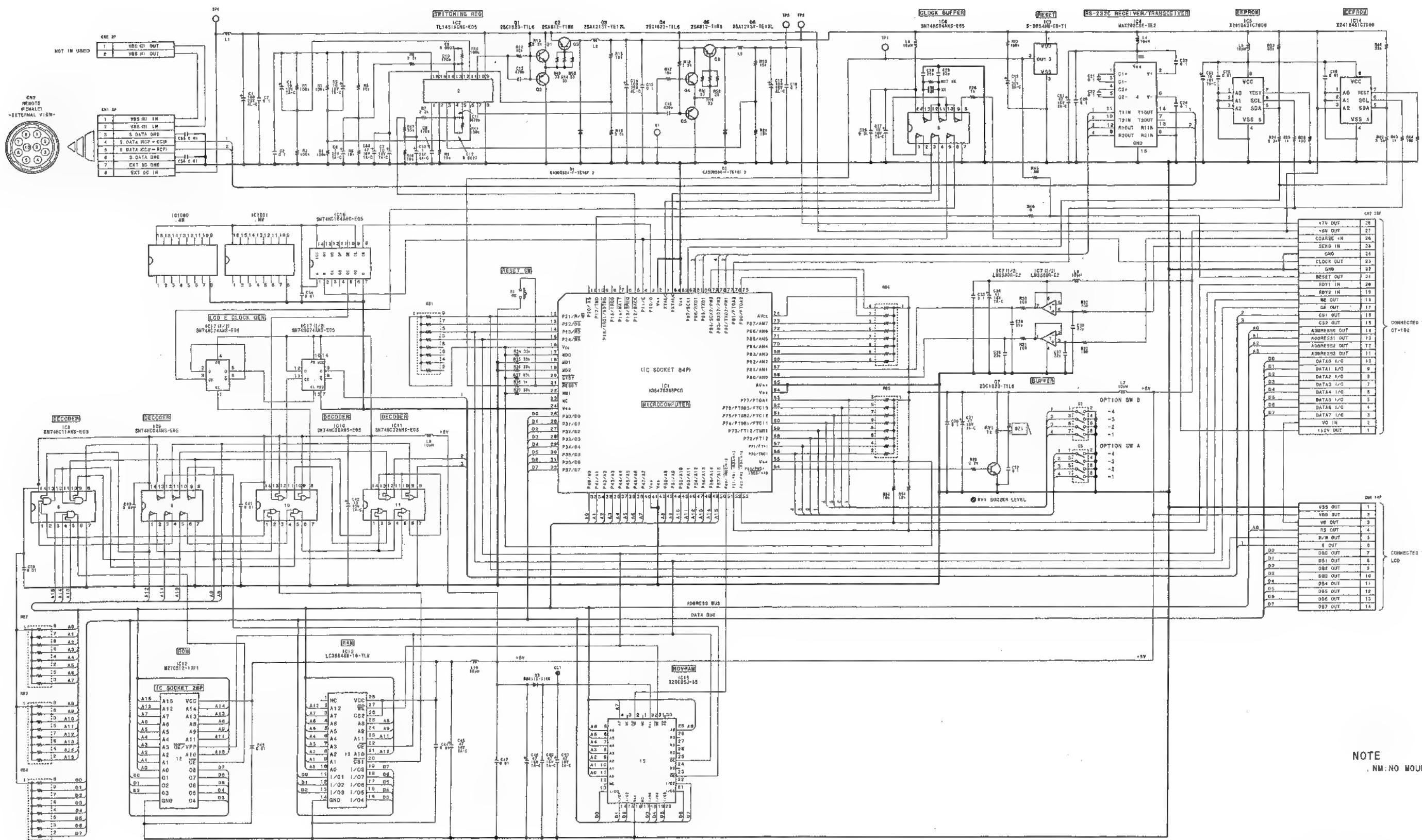


CPU-245 -B SIDE-
1-665-954-11

*: B SIDE

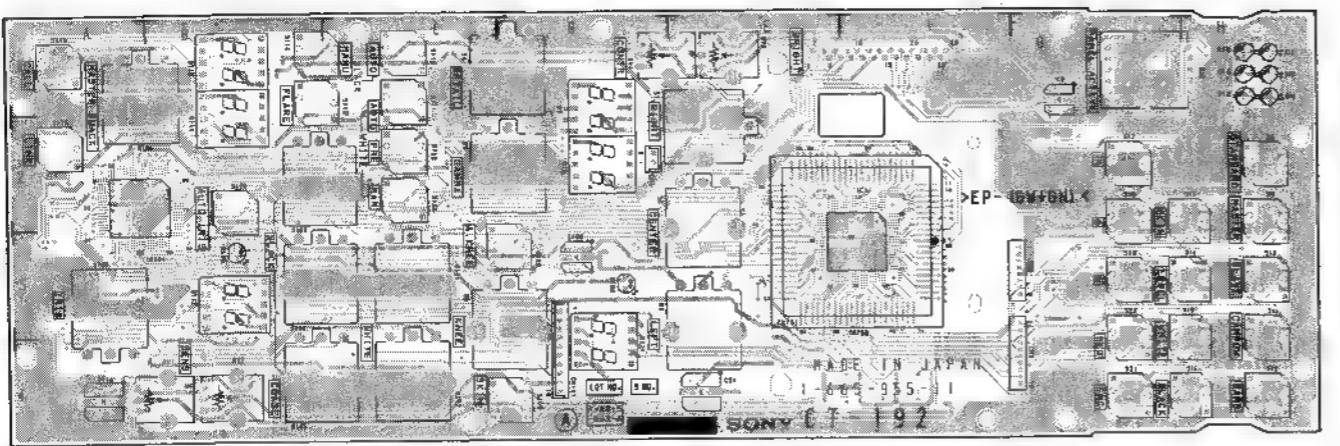
BZ1	C1
CNI12	D2
CN1	F1
*CN2	E3
CN4	P3
CN5	P2
D1	F2
D2	E2
D3	D3
E1	F3
IC1	B2
IC2	E1
IC3	B1
IC4	D1
IC5	C1
IC6	B1
IC7	D1
IC8	B3
IC9	B3
IC10	C3
IC11	G3
IC12	D2
IC13	E2
IC14	C1
IC15	D3
IC16	A2
IC17	A2
L1	F1
L2	F2
L3	E2
L4	E1
L5	C1
L6	B1
L7	G3
L8	D1
L9	C3
L10	D2
Q1	F2
Q2	F2
Q3	E2
Q4	E2
Q5	E2
Q6	E2
Q7	C2
RB1	A2
RB2	A3
RB3	A3
RB4	A3
RB5	C2
RB6	C2
RV1	C2
S2	C2
S3	C3
TP1	B1
TP2	F3
TP3	F3
TP4	F1
X1	B1

CPU-245 CPU-245



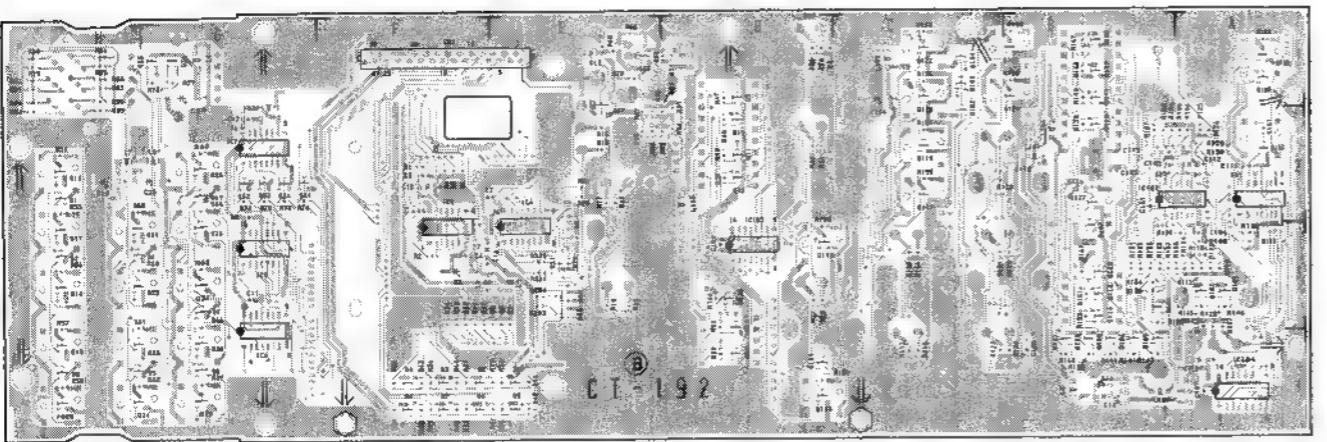
NOTE
NM: NO MOUNT

CPU-245
B-RCPTX7-CPU245/M



CT-192 -A SIDE-

1-665-955-11



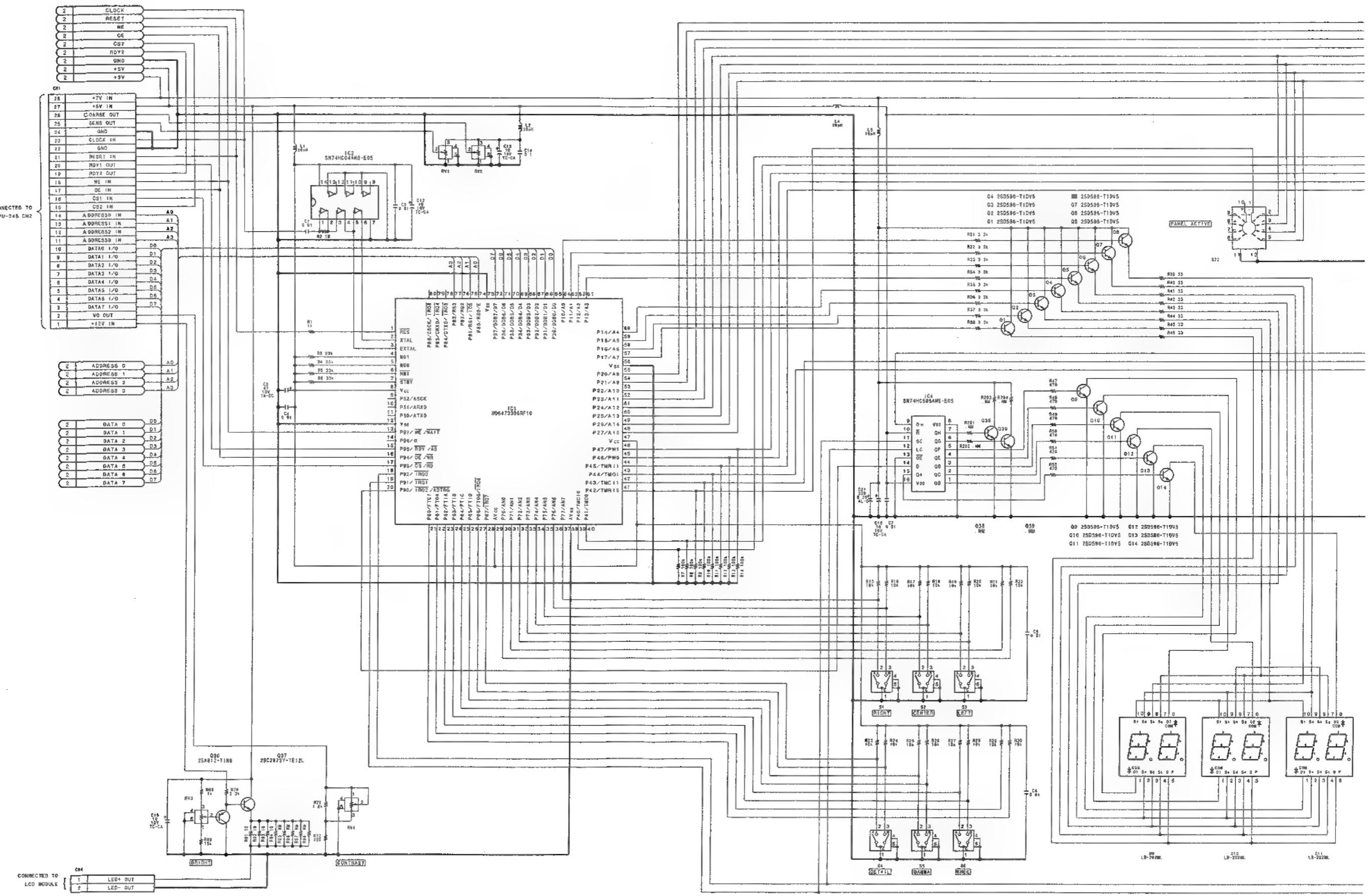
CT-192 -B SIDE-

1-665-955-11

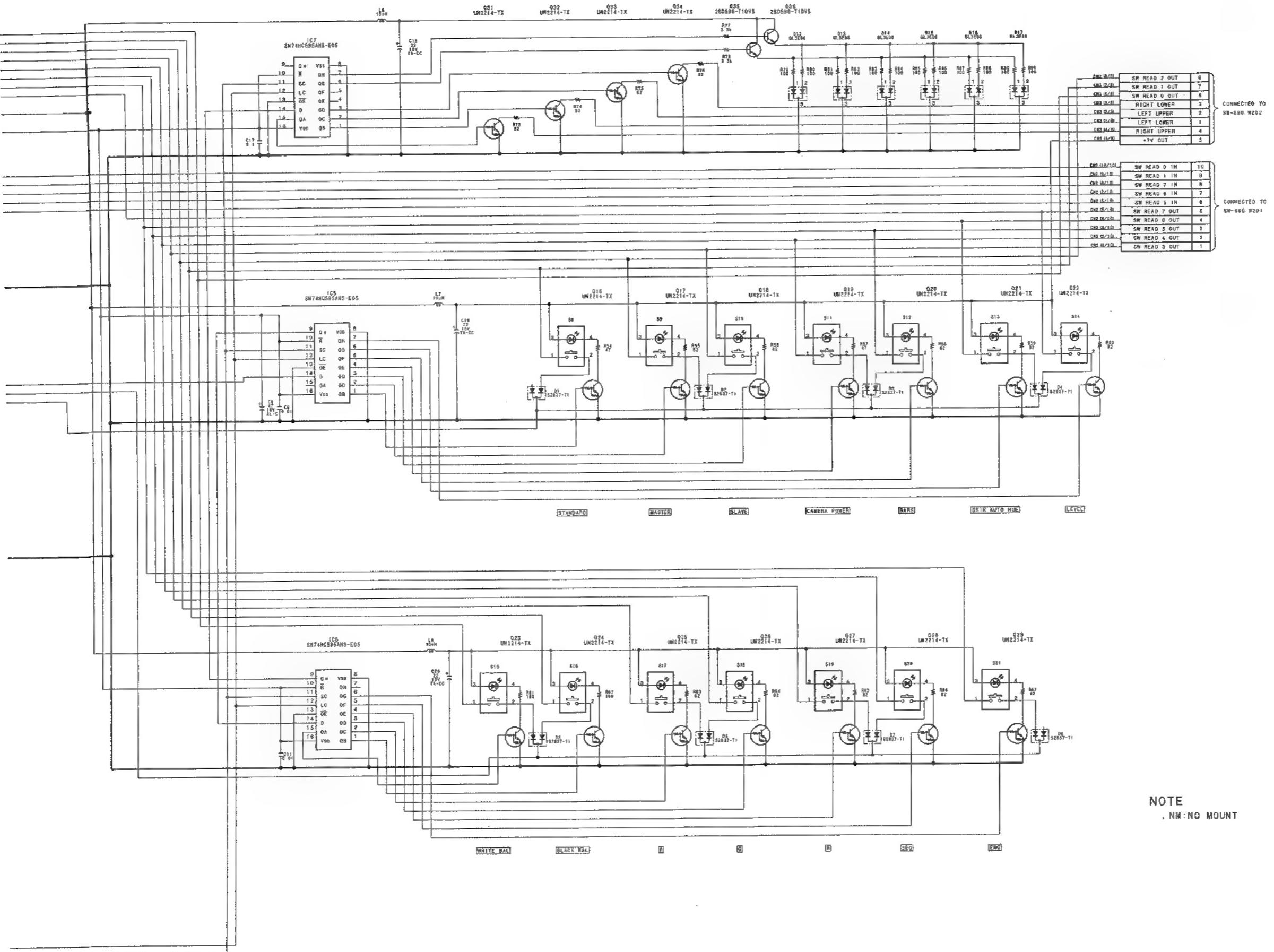
*: B SIDE

*CN1	E1	D109	B3	*L106	B2	*Q28	G4	*Q119	C2	S15	H4
CN2	G3	D110	B1	*Q1	B4	*Q29	G4	*Q120	B1	S16	H4
CN3	G3	D111	B1	*Q2	F4	*Q30	E1	*Q121	B1	S17	G2
CN101	D3	D112	B3	*Q3	F4	*Q31	G2	*Q122	C1	S18	G2
*D1	H2	IC1	F3	*Q4	F4	*Q32	G2	*Q123	A2	S19	G3
*D2	H3	IC2	F2	*Q5	F4	*Q33	G2	*Q125	A1	S20	G4
*D3	H4	IC4	E2	*Q6	F4	*Q34	G2	*Q127	B2	S21	G4
*D4	H3	IC5	G3	*Q7	F4	*Q35	G1	*Q128	D3	S22	G1
*D6	G2	IC6	G3	*Q8	F4	*Q36	G1	*Q129	B3	S101	C3
*D7	G3	IC7	G2	*Q9	D1	*Q101	A3	RV1	B4	S103	B2
*D8	G4	IC101	A2	*Q10	D2	*Q102	A3	RV2	B4	S104	B3
D9	D1	IC102	A2	*Q11	D2	*Q103	B4	RV3	E1	S105	B4
D10	D2	IC104	A4	*Q12	D2	*Q104	B3	RV4	E1	S106	A1
D11	D3	IC105	D3	*Q13	D3	*Q105	B4			S107	A3
D12	H1	IC106	A2	*Q14	D4	*Q106	B4	S1	E2	S108	D3
D13	H1	L1	F3	*Q15	H2	*Q107	B4	S2	E3	S109	D4
D14	H1	L2	B4	*Q16	H2	*Q108	B4	S3	E3	S110	C2
D15	H1	L2	B4	*Q17	H3	*Q109	B1	S4	D1	S111	C1
D16	H1	L4	G1	*Q18	H3	*Q110	B1	S5	D2	S112	C2
D17	H1	L5	E3	*Q19	H4	*Q111	B1	S6	D3	S113	B1
D101	D4	L6	G1	*Q20	H4	*Q112	B2	S8	H2	S114	B1
*D102	C2	L7	H2	*Q21	H2	*Q113	B3	S9	H2	S115	C1
*D103	C1	L8	G2	*Q22	H3	*Q114	B3	S10	H3	S116	A2
*D104	C1	L101	B2	*Q23	H4	*Q115	D3	S11	H4	S118	A1
*D105	A1	L103	D2	*Q24	H4	*Q116	D4	S12	H4	S120	B2
*D107	B3	L104	B4	*Q25	G2	*Q117	C2	S13	H2		
D108	D3	L105	C1	*Q26	G2	*Q118	C1	S14	H3		
			*Q27	G3							

CT-192 (1/2) CT-192 (1/2)



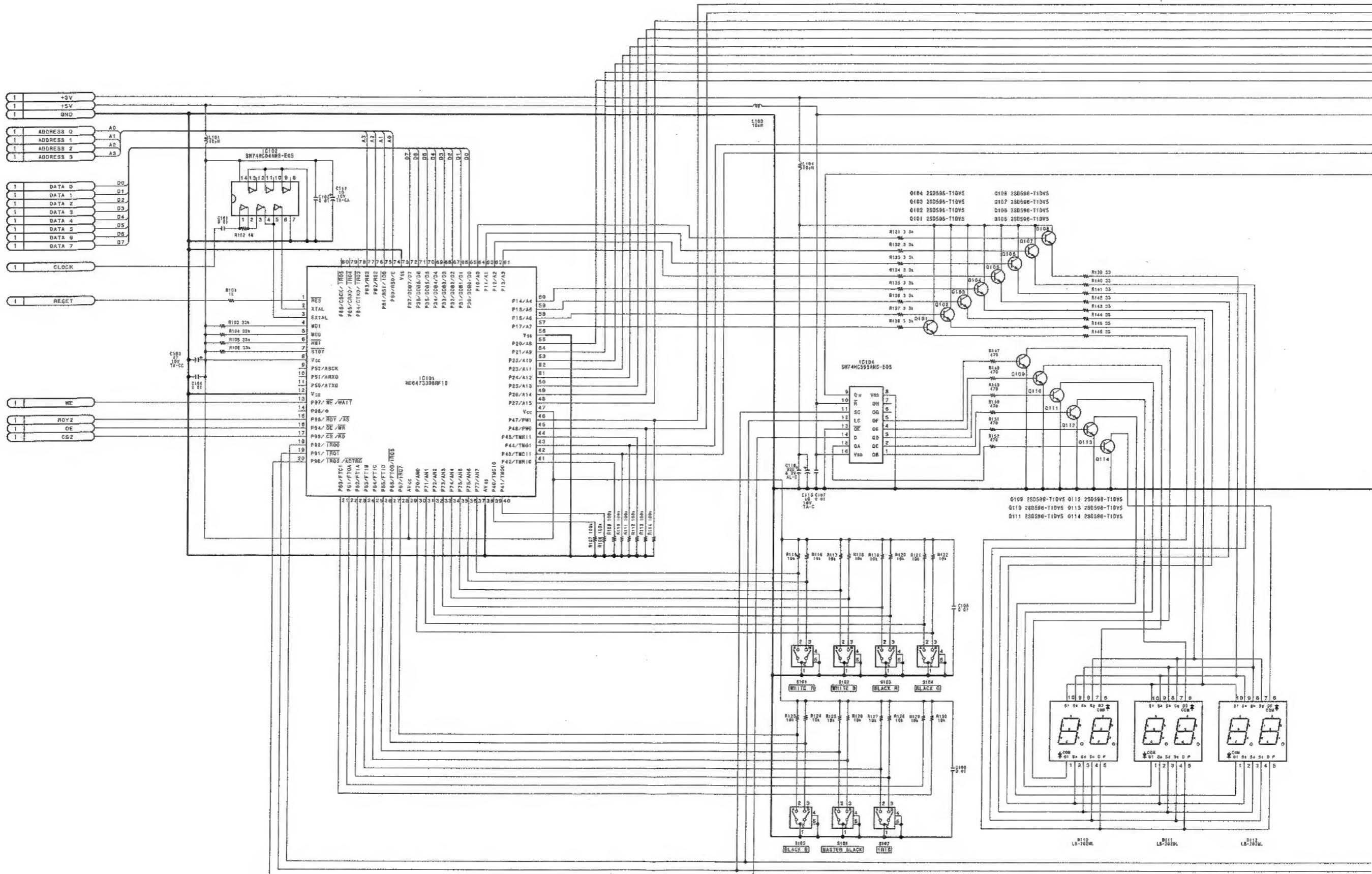
CT-192 (1/2) CT-192 (1/2)



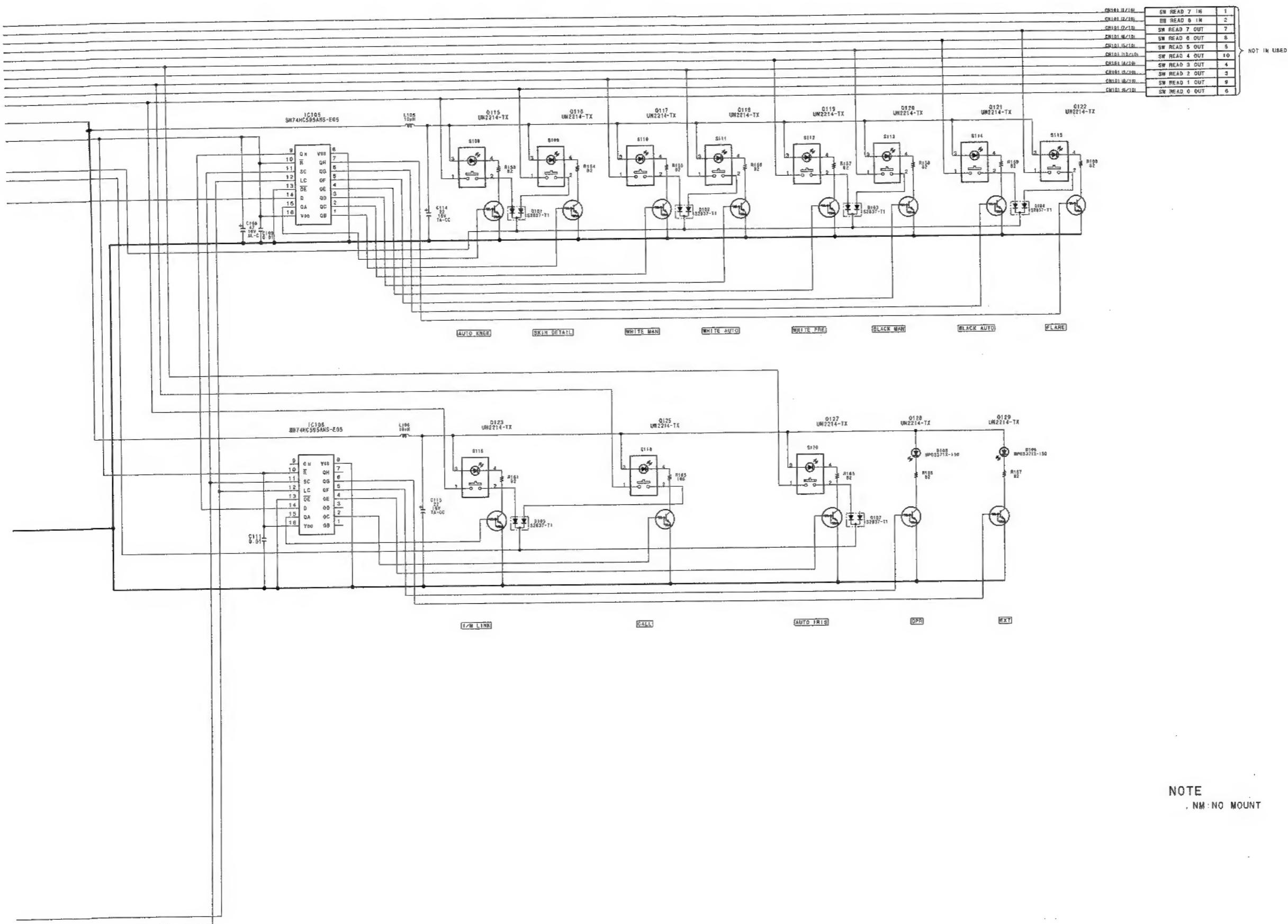
CT-192 (1/2)
B-RCP TX7-CT192/M

CT-192 (2/2) CT-192 (2/2)

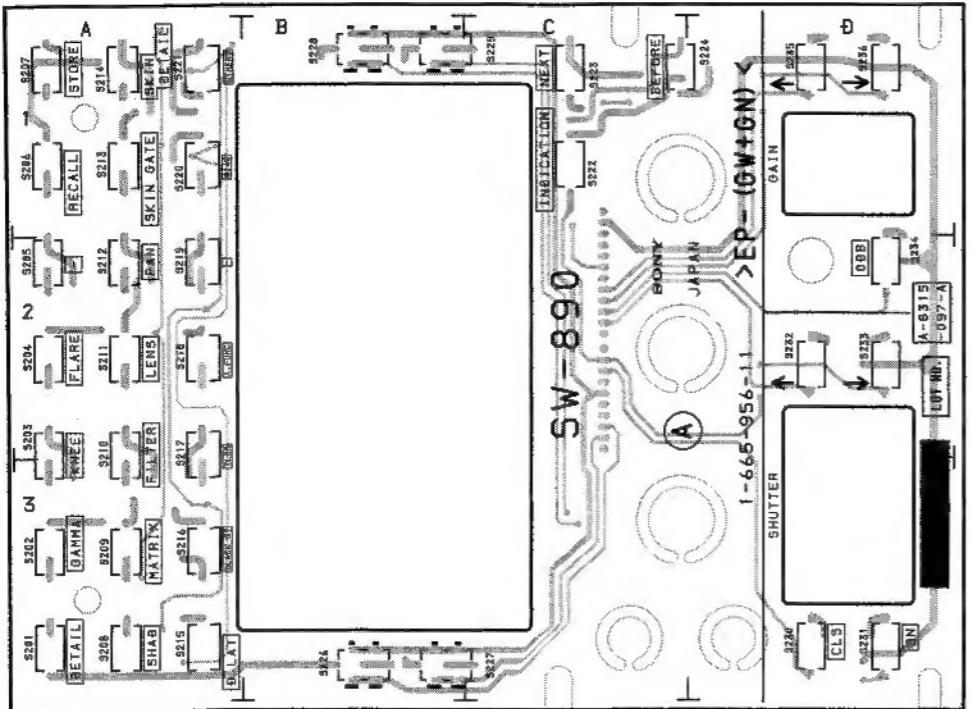
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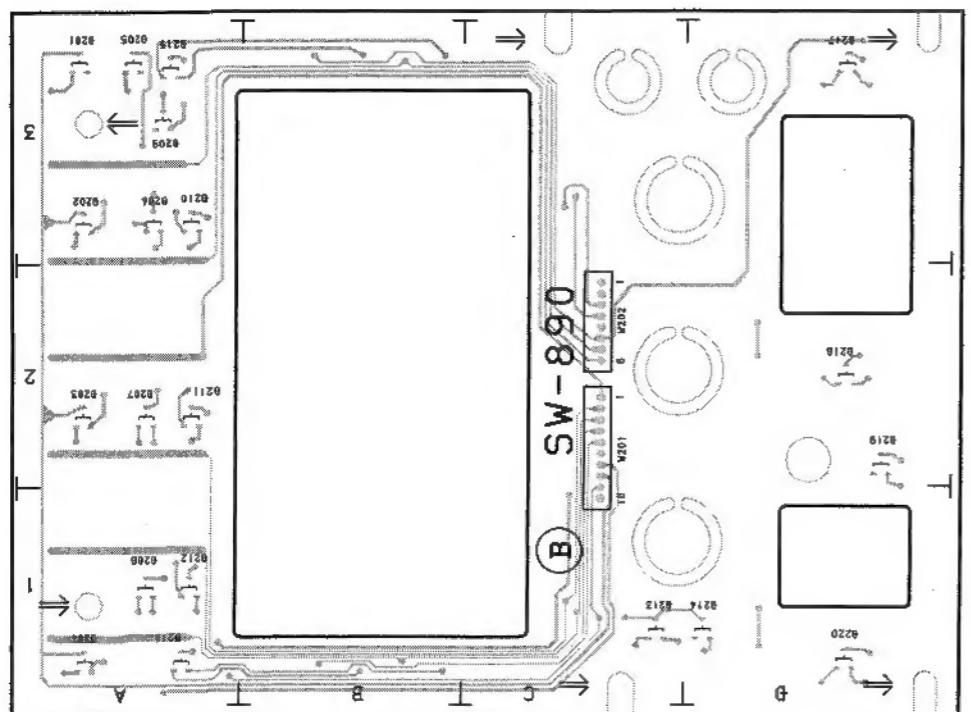
CT-192 (2/2) CT-192 (2/2)



CT-192 (2/2)
B-RCPTX7-CT192/M



SW-890 -A SIDE-
1-665-956-11



SW-890 -B SIDE-
1-665-956-11

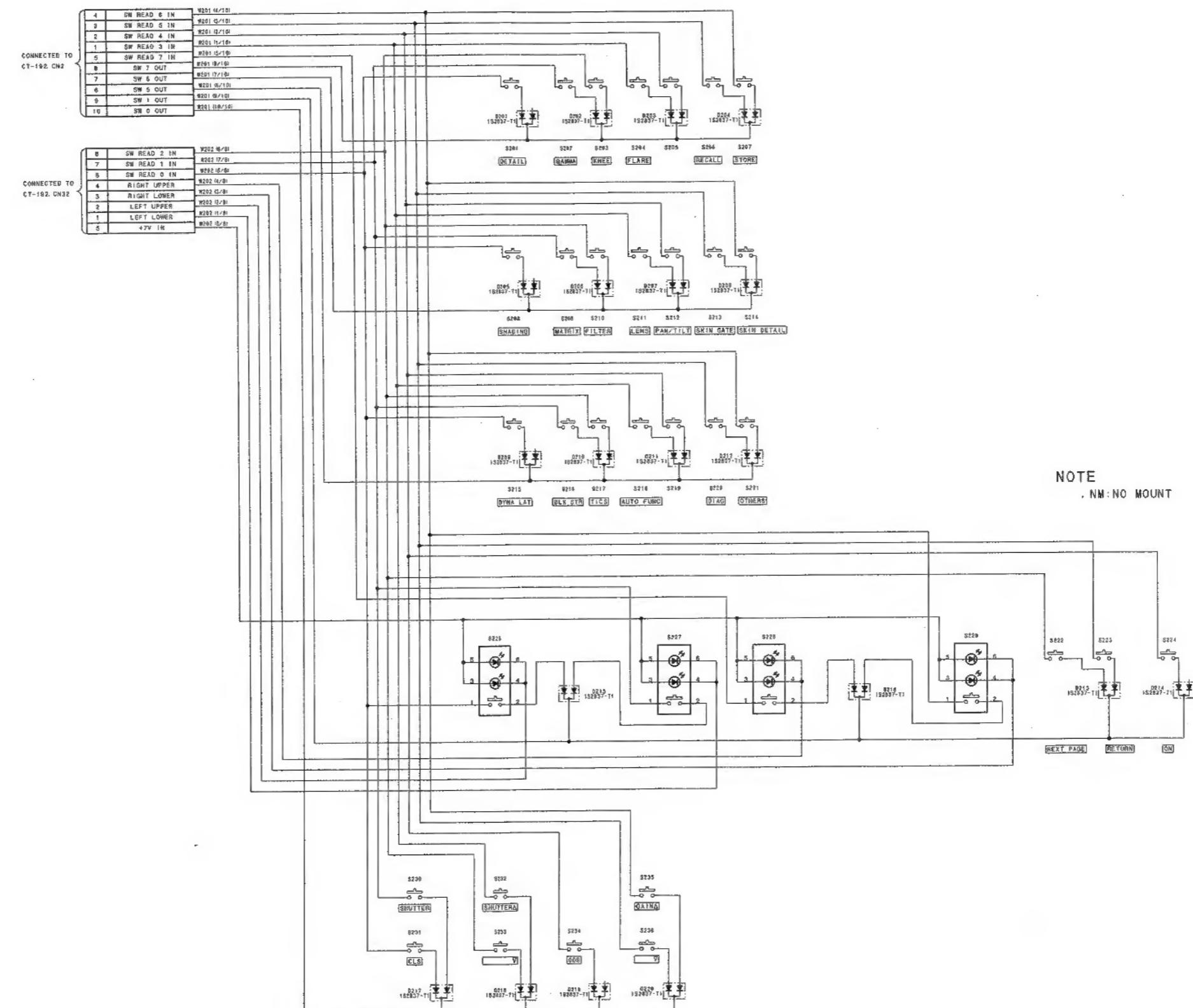
*: B SIDE

*D201
*D202
*D203
*D204
*D205
*D206
*D207
*D208
*D209
*D210
*D211
*D212
*D213
*D214
*D215
*D216
*D217
*D218
*D219
*D220

S201 P
S202 P
S203 P
S204 P
S205 P
S206 P
S207 P
S208 P
S209 P
S210 P
S211 P
S212 P
S213 P
S214 P
S215 P
S216 P
S217 P
S218 P
S219 P
S220 P
S221 C
S222 C
S223 C
S224 C
S225 E
S226 E
S227 E
S228 E
S229 D
S230 D
S231 D
S232 D
S233 D
S234 D
S235 D
S236 D
*W201 C
*W202 C

*W201
*W202

SW-890 SW-890



SW-890

B-RCPTX7-SW890/M